JUVENILE SUBSTANCE ABUSE AND CRIMINAL CAREER CONTINUITY

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The issue of juvenile drug abuse and criminal career continuity has become a nationwide concern in the last 3 decades. Social scientists and policymakers alike are concerned with the plausible relationship between juvenile drug abuse and adult crimes of high seriousness.

This study represents an effort to examine the connection between juvenile drug abuse and criminal career continuity. This study has been conducted to examine the life course of the individual. The data came from Lyle Shannon's longitudinal study of the relationship between juvenile delinquency and adult crime in three birth cohorts from the city of Racine, Wisconsin

The traditional social control approach toward reducing the likelihood of criminal career continuity is deterrence. The deterrence model asserts that people engage in certain kinds of behavior only after rational calculation of the costs versus the benefits. People who obey the law strive for the rewards of conformity and try to avoid the costs of criminal behavior. The threat of punishment increases the potential costs of breaking the law. Punishment is one sanction inducing such compliance.

It must be realized, however, that deterrence does not have a linear effect across all types of offenders. The degree of deterrent effect on future criminal activity is often mitigated by the circumstances unique to an individual. The offender who is involved with drug abuse and the lifestyle that surrounds it best exemplifies this situation. This

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INTRODUCTION

According to criminologists Larry Siegel and Joseph Senna (1991) the most serious social problem facing American society today is that of juvenile substance abuse and its association with youth crime and future criminal activity. The Uniform Crime Reports have suggested a high incidence of youth crime. In 1990 approximately 1.8 million arrests were made among youths under the age of 18- -including 650,000 arrests for index crimes. The latter figure indicates that about 28% of all arrests for the most serious crimes were of persons 17 and under (Inciardi, Horowitz, & Pottieger, 1993). Juveniles are almost always overrepresented in arrest statistics. In 1993, for example, 13- to 15- year- old youths made up 4.2% of the total population of the United States but accounted for 7.6% of all arrests, 1.8 times their proportion in the population. (Bernard, 1999). Much of this criminal activity centered on the distribution and consumption of drugs.

Almost every town and city in the United States has some type of drug problem. In fact, self-report data indicate that more than 50% of high school seniors have tried drugs and that more than 90% have used alcohol. Equally disturbing is the relationship between drug use and crime: Drug users are involved in a significant number of all crimes, and a large portion of known offenders are drug users. The consistent drug-crime association makes juvenile substance abuse a primary national concern (Siegel & Senna, 1991).

The widespread usage of drugs by juveniles can be analyzed through both the statistics of youthful offenders and the self-report data gathered from the general juvenile population. Offender- based records indicate that drug use is a critical problem for these juveniles. Of the offenders sentenced to correctional institutions, approximately 55% drank regularly, and 60% used an illegal drug on a consistent basis prior to the offense for which they were committed. More than 20% indicated that they had been using cocaine regularly; 9% had been using LSD regularly; and about 5% had been using heroin regularly. Furthermore, almost 50% of the juveniles were under the influence of alcohol and/or drugs at the time of their commitment offense (Whitehead & Lab, 1990).

Drug usage starts early among institutionalized youths. About 34% of the incarcerated juveniles and young adults questioned started using drugs between the ages of 12 and 13. First use of a hard drug, however, began between the ages of 14 and 15 (Whitehead & Lab, 1990).

The drug problem is not confined to incarcerated offenders. Almost 50% of the high school seniors and 20% of the 12- to 17- year- olds surveyed in 1986 stated that they had recently used an illegal drug (Whitehead & Lab, 1990). These statistics suggest that there is a considerable substance abuse problem among juveniles in general and among incarcerated juveniles in particular.

More evidence of the widespread use of drugs among juveniles was given by Jones and Bell-Bolek (1986), who indicated that 61% of the juveniles studied in their report stated that they had used an illegal drug at some time in their life, and 40% had used a drug other than marijuana. In another study by Thomas (1986) he reported that

25.7% of the juvenile participants in his study had used marijuana within the preceding 30 days. While some authors have suggested that overall drug usage by juveniles was in remission in the 1990s, lethal drugs such as "crack," "ice," and heroin had made their way into American high schools at an alarming rate (Bynum & Thompson, 1996).

A persistent question among policymakers and lawmakers alike is centered on a plausible relationship between juvenile delinquency and adult criminal behavior. The question is, are juveniles who are delinquents and drug users more likely to commit crimes as adults? The question is of both theoretical and practical importance. The theoretical significance of the relationship stems from two concerns. First, few studies have attempted to examine the impact of individual- level social and economic factors on criminal activity intervened by a transition from juvenile to adulthood. That is, few attempts have been made to examine the effects of individual- level social and economic changes during adolescence on adult criminal activity. The lack of longitudinal models of crime remains a hindrance to the development of substantive models of criminal career continuity from juvenile delinquency to adult criminality. Secondly, the role of drug-related crimes at an early stage in one's life on adult criminality is not well understood. Although researchers have investigated the empirical relationship between juvenile delinquency and the likelihood of committing crime as an adult, the role of substance abuse in the course of this transition is poorly understood. The lack of longitudinal approaches, along with a lack a focus on the importance of life transitions is a serious theoretical gap in criminology.

The policy implications surrounding career offenders have become a central focus of criminal justice system policy (Siegel, 1995). Criminologists know that a few career and chronic offenders commit a disproportionate share of all crimes (Shannon, 1988). They commit a great number of all delinquent acts as youths and then move into adult criminality, where they continue to commit crimes in great numbers. In order to reduce this crime rate, policymakers must develop specific and unique programs to deal with the small number of career offenders who commit crimes throughout the life course in disproportionate numbers.

As indicated earlier, few studies have examined the relationship between juvenile delinquency and adult crime. The most well known among the studies are Wolfgang, Figlio, and Sellin's Delinquency in a Birth Cohort (1972), David Farrington's Cambridge Study in Delinquent Development (1977), and Lyle Shannon's Criminal Career Continuity: Its Social Context (1988). These researchers have popularized the concept of criminal career continuity. According to Shannon (1988)

> The concept refers to the relationship of the number and seriousness of police contacts of one age period to those of a following age period. Most pertinent to our concerns is the relationship of police contacts during the juvenile age period (6 through 17) to the young adult period (18 through 20), since the juvenile period was the one in which continuers would supposedly be singled out for special assistance because of their youth in contrast to the more stringent sanctions applied to adult offenders. (p. 129)

Purpose of the Study

These earlier studies, however, did not focus primarily on the role of drugs in criminal career continuity, with the exception of Shannon (1998), who examined the role of drugs in criminal career continuity. However, a major shortcoming of his work is methodological: He examined the bivariate relationship between drug use and committing crime as an adult. The lack of a multivariate framework is an important methodological shortcoming. The purpose of this study was to examine the role of juvenile drug use on the likelihood of committing crime during adulthood.

Statement of the Problem

In an effort to examine the connection between juvenile drug abuse and criminal career continuity, a number of criminologists have conducted research projects to examine the life course of the individual. In essence, they look at the way a juvenile's career develops over his/her lifetime. Most of these studies have followed carefully defined groups of juveniles who share similar situations over an extended period of time. Such a group is referred to as a cohort. Because cohort members experience a common situation at one time, it is likely that they will be exposed to many of the same events and experiences over time (Conklin, 1981).

The traditional social control approach toward reducing the likelihood of criminal career continuity is deterrence. The deterrence model asserts that people engage in certain kinds of behavior only after careful and rational calculation of the costs versus the benefits. People who obey the law strive for the rewards of conformity and try to avoid the costs of criminal behavior. Punishment is one sanction inducing such compliance, because people fear punishment and do not want to risk their stake in conformity. The deterrence supporters claim that all behavior is determined by its possible consequences.

Thus, the purpose of punishment is to affect future conduct rather than to inflict pain on the offender for past behavior: The latter is known as the retribution model (Conklin, 1981).

In addition, it must be recognized that deterrence does not have a linear or homogeneous effect across all types of offenders. The degree of deterrent effect on future criminal activity is often mitigated by circumstances unique to that individual. The offender who is involved with drug abuse and the lifestyle that surrounds it best exemplifies this situation. This way of life diminishes the effectiveness of official deterrence techniques. This is to an extent because drug abuse is a biological, psychological, and sociological phenomenon that involves and affects every aspect of the offender's life. When discussing drug abuse, one must realize that it is a biopsychosocial phenomenon. Thus, certain biological effects are produced by the drug itself, coupled with the psychological dependence users often develop to a drug, combined with the social and cultural facilitators of drug abuse.

Biological dependence is easily understood and easily identified. It is a condition rooted in the pharmacological effects of the drug. It is an expression of the biochemical relationship between the drug and a subject's metabolism. Its presence is recognized due to an individual's concern that the drug will be withheld, causing withdrawal symptoms (Willis, 1969). Physical dependence is important because it is a significant index of the intensity of a certain subject's degree of dependence on a drug. Furthermore, it has a practical importance in that the drugs that foster physical dependence present problems for medical, as well as criminal justice custodial personnel during the withdrawal period (Willis, 1969)

Psychological dependence represents a more subtle relationship between an individual and the drug he/she ingests. In the case of most drugs, intensity of psychological dependence occurs in degrees of attachment. However, it must be recognized that psychological dependence does not reside in the drug itself, but rather in the psychological make-up of the individual. Psychological dependence should never be underestimated, because it is a phenomenon that requires constant evaluation, since it can produce dramatic effects in a subject, primarily by altering his/her total lifestyle. Thus, psychological dependence is evidenced by an overpowering desire to take a drug that often causes people to neglect their normal activities, leave family and friends, give up work, and enter a drug abusing subculture, where they constantly focus on procuring more drugs (Willis, 1969). Does deterrence have the same effect on drug users as on non-users?

In this study, I have pursued a number of broad research concerns dealing with the question are juveniles who are delinquents and drug users more likely to commit crimes as adults?

1. Are juvenile delinquents who use drugs more likely to commit crimes in adulthood than those juveniles who committed no crimes as juveniles?

2. Are juvenile delinquents who committed nondrug offenses more likely to commit crimes in adulthood than those juveniles who committed no crimes as juveniles?

3. Are those who commit drug crimes as juveniles more likely to commit crimes as adults compared to those who committed nondrug crimes as juveniles?

4. Do juveniles who are sanctioned have the same likelihood of committing crimes as adults as those juveniles who were not sanctioned?

5. Are juvenile delinquents who are drug users and have been sanctioned more likely to commit crime in adulthood than juvenile delinquents who are non-drug users and have been sanctioned?

CHAPTER 2

LITERATURE REVIEW

This chapter is divided into three sections. The first section presents the demographic characteristics of juvenile delinquency in general. The second section presents an overview of criminality in classical and contemporary theories. The third section presents several criminal career research projects that have served as guidance.

Demographic Characteristics

In the United States the police arrest approximately 2.3 million persons under the age of 18 each year. There are many more rapes and robberies by juvenile offenders than in the past with the number of youths arrested for violent crimes increasing 62% between 1986 and 1991 (Hyde, 1997). Snyder (1997) reported that 13% of all violent crimes cleared by arrest were attributed to juveniles (Levinson & Greene III). Further UCR data show that the number of adolescents under the age of 18 arrested for violent crime increased by nearly 60%- from 58,071 to 92,848- between 1987 and 1996 (Hart 1998). Also, the number of juvenile murders tripled between 1984 and 1994 (Clayton, 1996). These figures suggest that youth crime is a national problem that is on the rise

The only source of national crime statistics covering the entire juvenile population is the Uniform Crime Reports (UCR). This is a national compilation of crime data from local departments compiled each year by the Federal Bureau of Investigation (Short, 1990).

These statistics reflect only crimes known to the police. The UCR is made up of two subgroups of offenses. The most serious offenses are known as Part I offenses, or Index

Crimes. This category is comprised of murder, rape, robbery aggravated assault, burglary, larceny, motor vehicle theft, and arson. All other offenses are deemed less serious and are referred to as Part II offenses (Whitehead & Lab, 1990).

The UCR suggests a high incidence of youth crime. In 1990 alone, about 1.8 million arrests were made among persons under age 18. Of these, more than 650,000 arrests were for the most serious offenses. This latter figure indicates that nearly 30% of all arrests for the most serious crimes were of persons under the age of 18 (Short, 1990).

Age Distribution

A close inspection of U.C.R. data for 1985 shows the extent to which juveniles were involved in serious offending. For the violent crimes of rape, robbery, murder, and aggravated assault, juveniles made up almost 17% of the total arrests. This represents over 72,000 offenses. In addition, youths were arrested for nearly 600,000 property offenses. This reflects approximately 35% of all property offenses in 1985. Taken by themselves, these statistics are large. The problem is greater however, when one considers that those youths between the ages of 10 and 17 make up only 12% of the population. Thus, juvenile offenders are contributing a disproportionate amount of crime to the nation's total (Whitehead & Lab, 1990).

Residency

More juvenile delinquency exists in cities than in rural areas and the larger the city, the more juvenile delinquency there is. Factors used to explain this phenomenon include more opportunity to commit crimes, the heterogeneity of the population, and a large turnover of the residents due to high mobility. A large number of youths reside in cities.

There is a high degree of anonymity in large groups, with little adult supervision. There are also more family problems (Angenet & de Man, 1996).

Race Distribution and Sex Distribution

White youths make up the majority of all arrestees (74.9%) and all Part I property offenses (72.1%). Personal crimes such as murder, rape, robbery, and aggravated assault, however, are committed more by African American juveniles (52%) than any other racial group. This overrepresentation of Blacks in the violent offense category is disturbing when one considers that Blacks comprise only 15% of the youthful U.S. population (Whitehead & Lab, 1990)

The UCR routinely presents figures of crime by sex of the offender. In 1985 figures showed that females made up about 22% of all juvenile arrests. Female adolescents tend to confine their delinquent behavior mostly to Part II offenses. Only 33% of the crimes committed by females are index offenses, whereas 38% of the crimes committed by males fall into the index category (Whitehead & Lab, 1990).

Drug Use and Its Consequences

When adolescents engage in drug use, they, their families, and their communities suffer. In many cases, due to the strong association between drug usage and juvenile delinquency, an increased burden is placed on the juvenile justice system. Since 1992, the high rate of illegal drug use by adolescents has been increasing (OJJP, 1997).

According to the Monitoring the Future study (formerly known as the High School Senior Survey), which has studied the use of alcohol, tobacco, and other drugs by U.S. youth since 1975, drug use among high school seniors peaked in 1981, when

approximately 65% of 12th graders responded that they had used an illicit substance at some time in their lives. This number dropped to a low of 40.7% by 1992. However, in 1993, this downward trend was in full reversal. By 1996 almost 51% of high school seniors reported that they had used illicit drugs (OJJDP, 1997).

Juveniles are using mood -altering drugs at increasingly younger ages. The National Household Survey on Drug Abuse reported an overall decline in the mean age of first use of alcohol, from 17.2 years in 1975 to 15.9 years in 1993; marijuana use changed from 18.9 years in 1975 to 16.3 years in 1994 (OJJDP, 1990).

Studies of drug use among juveniles in the juvenile justice system indicate wide usage among detainees. Since 1990, the Drug Use Forecasting program administered by the National Institute of Justice has studied drug usage among male detainees in 12 jurisdictions across the United States. These data show an increase in drug usage by youths in nearly all locations between 1993 and 1995. In 1995 juveniles testing positive for at least one illicit substance ranged from 19% in Portland, Oregon, to 58% in Washington, D.C. The data, which do not include questions on alcohol use, showed in 1995 that the illicit drug most widely abused by juveniles was marijuana (OJJDP, 1997).

Long-term drug abuse by adolescents is often accompanied by a host of other problems, including academic difficulties, health-related consequences, mental health concerns, and involvement in the criminal justice system. There are also many detrimental consequences for the family, community, and society in general (OJJDP, 1997). Declining grades, truancy, and an increased likelihood of dropping out of school are associated with juvenile substance abuse (OJJDP, 1997).

Health-related consequences of juvenile drug abuse include accidental injuries, physical disabilities and diseases, as well as risk of overdose. Death through suicide, homicide, accidents, and illness is often the final outcome for many juvenile drug users. The Drug Abuse Warning Network (DAWN) indicates that drug-related hospital emergency room visits for youths ages 12-17 increased by 17% in 1994 over rates for the previous year. Furthermore, between 1993 and 1994, there was a 50% increase in emergency hospital room visits related to marijuana/hashish use in this age cohort (OJJD, 1997).

The danger of being infected by the AIDS virus or other sexually transmitted diseases is increased for drug -abusing youth if they engage in high-risk behaviors. Rates of AIDS infection are at present relatively low among teenagers when compared to most other groups. Nevertheless, because the disease has a long latent period before symptoms appear, many young adults may have actually been infected with the disease as adolescents (OJJDP, 1997).

According to the OJJDP (1997), their peers often stigmatize drug-using adolescents. Furthermore, many of these young people disengage from school and community activities, thus depriving society of the positive contributions they might otherwise have made. (OJJDP, 1997).

Depression, developmental lag, apathy, withdrawal, and many other psychological maladies are frequently associated with substance abuse among juveniles. Users are at higher risk than nonusers for a host of mental health concerns, including suicidal tendencies, depression, conduct problems, and personality disorders. Marijuana use,

which is prevalent among drug- using youths, has been shown to interfere with short-term memory, learning, and psychomotor skills. Marijuana is also believed to affect an adolescent's motivation and psychosocial development (OJJDP, 1997).

Many aspects of family life are made problematic, sometimes ending in family dysfunction. Family members are greatly affected by drug- abusing youths, who often drain family financial and emotional resources. High economic and social costs are a consequence of monetary expenditures and emotional distress related to drug-related crimes; these include increased burdens of support for those juveniles unable to become self-supporting and greater demands for medical treatment (OJJDP, 1990).

Of grave importance to many laymen and social scientists alike is the connection between adolescent substance abuse and delinquency. Possession and use of drugs are illegal for all adolescents. Because drug abuse and delinquency are inextricably linked, arrest, adjudication, and court supervision by the juvenile justice system are often consequences for young people involved in this behavior. Drug abuse and delinquency often share common etiological factors, such as school and family problems, negative peer groups, lack of neighborhood social controls, and a history of physical abuse. Drug abuse is also associated with violent crime by youths, which increases community residents levels of fear and demands for intervention by juvenile justice agencies. Gang warfare, drug trafficking, prostitution, and youth homicides are often linked to adolescent drug abuse (OJJDP, 1997).

The Drug Use Forecasting program set up by the federal government found that male juveniles detained for drug offenses (e.g. sales, possession) had the highest rate of

positive drug use when compared to youths detained for other kinds of crime. However, a significant amount of drug abuse was also found among juveniles who committed violent property and other crimes (OJJDP, 1997).

In a survey conducted in 1987, approximately 40% of youths under the age of 18 were under the influence of drugs at the time of their current offense. More than 57% responded that they had used an illicit substance within the previous month (OJJDP, 1997).

A study of 113 delinquent adolescents in a state detention facility revealed that 82% reported that they were heavy drug (daily) users prior to being committed to the facility; 14% were regular users (more than two times weekly); and 4% reported occasional use (OJJDP, 1990).

Classic and Contemporary Sociological Theories

In order to provide an understanding of how sociologists study deviance, three sociological perspectives should be contrasted—symbolic interactionism, functionalism, and conflict theory. Within each of these perspectives are theorists who seek to explain the causes of criminal activity. First discussed is the functionalist approach also known as the social structural approach; this is followed by a discussion of the symbolic interactionist approach, also known as the social process approach; and the section concludes with a discussion of the conflict approach.

Functionalist Theories

The functionalist, or social structural approach, offers the researcher the purest sociological explanation of criminal behavior. It links the primary difficulties of

individuals to their social structural origins. Social structural theories depict crime as a product of the structure of society. Thus, structural components that contribute to poverty, unemployment, poor education, and other deprivations of the lower class are seen as the root causes of much criminal activity. Theories of this sort are not intended to assert that only poor people commit crimes. Furthermore, they are not intended to imply that persons in the lower levels of the social structure have no choices or are not responsible for their deviant behavior. These theories do, however, contend that crime is predominantly a lower-class phenomenon, and they thus point to the many flaws within the social structure that increase the likelihood of a person within the lower classes resorting to criminal activity (Brown, Esbensen, & Gies, 1991).

The functionalist, or social structural, theories are macro theories. They attempt to account for the higher rates of crime that characterize the lower classes. These theories reflect a fundamental faith in the social system, but they use procedures to identify and analyze structural faults that contribute to criminal activity. These theorists tend to look for reform rather than revolution (Brown et al., 1991).

In this section, two variations of social structural theories are examined. The first type is called strain theory, which reflects the notion that crime is a consequence of weaknesses in the social structure. The second type is called the social ecology approach, which examines the social and economic conditions of neighborhoods (Brown et al., 1991).

Strain theories. Anomie is a term primarily associated with two great sociological theorists, Emile Durkheim and Robert K. Merton. When Durkheim introduced the

concept in his 1893 doctoral dissertation, The Division of Labor in Society, he used it to describe a situation of "deregulation" taking place in society. By this, Durkheim meant that the rules of general conduct had broken down and that persons did not know what to expect from one another. This normlessness often leads to deviant behavior. In 1897 Durkheim again used the term anomie in his second major work Suicide. Within the text of this work, Durkheim referred to a morally deregulated condition in which people have inadequate moral controls over their behavior. Thus, a society might be anomic if its citizens do not know when to stop striving for success or how to properly interact with people along the way (Williams & McShane, 1988).

Hence, anomie refers to a breakdown of social norms and a situation in which those norms are unable to guide the activity of its members. Without clear norms to instruct them, people cannot find their proper place in society and have great difficulty adjusting to changes in their lives. As a consequence, subjects oftentimes feel frustrated, dissatisfied, and deviant (Williams & McShane, 1988).

In 1938 Merton used Durkheim's concept of anomie to explain deviance in the United States. His conceptualization was different from that of Durkheim. Merton divided social norms into two types. He talked about societal goals and the acceptable means of achieving the desired goals. Furthermore, Merton redefined anomie as a split between the desired goals and means as a result of the way society is structured. Hence, deviance could be explained as a consequence of a social structure within which culturally defined goals and socially structured means are separated from one another (Williams & McShane, 1988).

Robert K. Merton's 1938 synthesis of anomie theory has been acclaimed by many to be the single most important conceptualization in the sociology of crime and deviance, and it is possibly the most frequently quoted paper in modern sociology. When Merton wrote his seminal work, crime appeared to be rampant in American society. Merton developed an explanation that seemed highly plausible: He asserted that certain social conditions place pressures on people differentially throughout the class structure and thatpeople react individually to these conditions. While Durkheim asserted that people are naturally inclined to have unlimited wants that must be socially controlled, Merton believed that such wants were socially generated (Brown et al., 1991).

Merton stated that all societies have a cultural system that describes socially approved goals and that denotes acceptable means for achieving these goals. Not only do these acceptable means and goals enable persons to strive for success in acceptable ways, but at certain times they also place pressure on many parts of society to engage in deviant behavior in an effort to obtain success. This usually takes place when the goal of success is emphasized more than the acceptable ways of achieving success (Brown et al., 1991).

According to Brown et al. (1991), in the United States, many segments of society are at a greater disadvantage than others. Thus, the acceptable means of procuring wealth are differentially available throughout the class structure.

There are five distinct ways in which people adapt to this structurally imposed stress. They are conformity, innovation, ritualism, retreatism, and rebellionism.

When society is relatively stable most people choose conformity, which means that they accept both the cultural goals and the institutionalized means. These people try to

achieve wealth through the approved methods laid down by middle-class standards and values (Vold & Bernard, 1986).

Most criminal activity that exists in society usually takes the form of innovation. People who innovate maintain their allegiance to cultural goals, but they find that they cannot obtain these goals through institutionalized means. Thus, they devise new methods by which they can obtain the desired ends. For example, businessmen may develop different types of white-collar crime entailing fraud and deception, or they may cheat on their income tax. In this case, individuals keep their commitment to the cultural goal, but are pursuing it through illegal means (Vold & Bernard, 1986).

A third possible adaptation, ritualism, involves rejecting the notion of ever achieving wealth while still adhering to the norms of hard work and honesty. They simply like to "play it safe." They will never be disappointed by failure because they have already abandoned the goals. These people have procured a decent lifestyle through the institutionalized means, but have no hope of gaining anything more. The fear of losing their possessions prevents them from changing their particular adaptation (Vold & Bernard, 1986).

The fourth adaptation is called retreatism. With this option, individuals simply drop out of the social scene. Retreatists do not pursue society's cultural goals, nor do they follow its institutionalized means. Those who typically follow this lifestyle include psychotics and drug addicts (Vold & Bernard, 1986).

The last possible adaptation style is called rebellionism. With this option, people simply replace a society's goals with new ones. In essence, they do not function as

members of the existing society, but rather begin to live within an alternate culture (Vold & Bernard, 1986).

Many theorists have tried to develop and refine Merton's strain theory. The most prominent of these attempts was first made by Albert Cohen in 1955 in his seminal work, Delinquent Boys: The Culture of the Gang. Later, in 1960, another significant contribution to strain theory was made. The theorists were Richard Cloward and Lloyd Ohlin whose ideas were aptly expressed in Delinquency and Opportunity.

Albert Cohen's (1955) theory was designed to address two known facts. First is the existence of a delinquent subculture, and second is the fact that this subculture is concentrated among the male, working-class segments of society. To Cohen, both of these assertions were incontestable. The existence of a delinquent subculture was widely accepted, and the opinion at the time suggested that female delinquency was not serious (Empey & Stafford, 1991).

With these ideas in mind, Cohen (1955) asserted the following propositions to explain deviant behavior:

1. Lower-class Americans embrace the middle-class success ethic.
2. The socialization of lower-class children hinders their capacity.
3. Decreased ability to compete produces strain.
4. Increased strain produces the delinquent subculture.
5. The delinquent subculture produces delinquent behavior (Empey & Stafford,1991, p.19)

Cloward and Ohlin's version of strain theory relied on many of the same properties as Cohen's. Like Cohen, they asserted that delinquent subcultures are usually found among young males in lower-class areas of inner cities. Thus, their primary objective was to explain the rise and perpetuation of these subcultures. In addition, they also asserted that the desire to succeed promotes delinquent behavior (Empey & Stafford, 1991).

Beyond these two similarities, Cloward and Ohlin's theory contains some distinctive characteristics of its own. Whereas Cohen's subjects are malicious and negativistic, Cloward and Ohlin's delinquents are rational and utilitarian. When legitimate avenues for success are not open to them, they turn to illegitimate means, if possible (Empey & Stafford, 1991).

The following propositions sum up Cloward and Ohlin's position:

1. The success ethic is coveted by all Americans.
2. Opportunities to get ahead are not equally distributed throughout society.
3. Blocked opportunities induce strain on certain class members.
4. Strain produces deviant subcultures
5. Deviant subcultures produce deviant behavior (Empey & Stafford, 1991p.19).

Overall, the functionalist perspective is concerned with stability over time. Cultural characteristics such as values, norms, and expectations remain constant. Change occurs slowly and in small increments. Thus, there exists continuity with the past, including criminal career continuity.

Social ecology approach. "Ecology is defined as the study of the relation of the organism to its environment" (Brown et al., 1991, p. 321). Hence, social ecology focuses on a person's relation to his/her social environment. For criminal justice professionals, this involves studying the spatial distribution of delinquency (Brown et al., 1991).

The ecological approach to studying crime developed out of the efforts of the Chicago school of sociology from the 1920s through the 1940s. This school stressed the relationship between research and policy and consequently conducted a great deal of ethnographic data. The Chicago program of study was driven by ideas embedded in plant ecology. From this base, it was asserted that the subjects must be studied in their natural environment.

Robert Park, a professor at the University of Chicago, drew upon the natural science of plant ecology in order to study deviance. He thought of society as a social organism that contains "natural areas"; that is, areas typified by homogeneous ethnic groups and income levels (Brown et al., 1991).

Park collaborated with Ernest Burgess to describe the growth of cities in America. They asserted that cities expand radially from a central business district, A theory known as the concentric zone model. Five adjacent zones are identified: Zone 1 consists of the central business district characterized by few residents and dominated by commercial enterprises. Zone 2 is considered the transitional zone. It is made up of dilapidated housing, factories, and abandoned buildings. Typically, the poorest people live in this zone, including most recent immigrant groups. Zone 3 consists of the working-class area where people escaping the transitional zone live. This, zone is typified by single- family

tenements. Zone 4 resides on the outskirts of the city, where single- family homes abound. Beyond this is zone 5, known as the commuter zone or the suburbs. Park and Burgess postulated that all cities expand in this manner. As one zone becomes too restrictive, it encroaches into the next zone until the original residents move to the next zone. The closer a person lives to the central business district, the lower the quality of housing. As residents economic conditions improve, they seek to migrate to outer zones. The notion of this type of migration was adopted from the biological science of ecology, which identified patterns of invasion, dominance, and succession (Brown et al., 1991).

Clifford Shaw and Henry McKay built their theory on the foundation laid down by Park and Burgess, asserting that delinquent behavior was associated with the social environment. Shaw and McKay used three different types of maps to plot male delinquency rates in Chicago from 1900 to 1933. "Spot" maps were used to pinpoint the residences of all juveniles who were arrested; "rate" maps detailed the percentage of juveniles with arrest records in each of the 431 census tracts; and "zone" maps detailed the delinquency rates for each of the five zones identified in the model (Brown et al., 1991).

Despite changes in the ethnic make- up of the groups living in the different areas, the rates of criminal behavior remained relatively constant. This demonstrated that high rates of crime could not be attributed to the groups living in the inner cities, but rather that the rates were a product of the ecological features of the inner zones. For all years tabulated, the zone map of social illnesses showed an inverse relationship to distance from the inner city. In essence, criminality rates were highest in the central business

district and transitional zone and lowest in the commuter and residential zones (Brown et al., 1991).

Shaw and McKay postulated that criminality is associated with the physical structure and social organization of the city. They asserted that differential value systems were maintained in different communities. They further contended that this exposure to a number of different values meant that subjects in certain areas would come into contact with individuals involved in criminal activities (Brown et al., 1991).

In addition to the notion of differential association is being predominated in high delinquency neighborhoods, Shaw and McKay further asserted that these areas were socially disorganized. For Shaw and McKay, this social disorganization revolved around three variables: poverty, residential mobility, and racial heterogeneity. These independent variables generate social disorganization, which in turn contributes to crime (Brown et al., 1991).

Overall, juveniles move through a variety of environments over time. As they go through different environments, the likelihood of continuity changes. Thus, social mobility changes the likelihood of continuity. If the youths are exposed to a number of law -abiding environments, it is likely that law- abiding behavior will result and continue. However, if they are repeatedly exposed to environments in which unlawful behavior is the norm, it is likely that unlawful behavior will result and continue.

Symbolic Interaction Theories

The functionalist or social structural theories addressed variations in rates of crime across structural conditions. Symbolic interactionists theories, also known as social

process theories, attempt to explain how individuals become deviant. The focus for the symbolic interactionists rests on the processes experienced by individuals and not on structural matters. With this shift in focus, one moves from a macro- to a- micro orientation. Symbolic interactionist theories compensate for errors that arise as a result of applying social structural theories to individual- level data. For example, strain theories are based on the premise that the social structure generates a disproportionate pressure upon persons in the lower classes to commit crimes. The implication is that persons subjected to economic deprivation will resort to criminal activity, whereas the wealthy, because of the absence of structurally induced strain, will not. This is clearly not the case, because most people subjected to deprivation and poverty do not become criminals, while some individuals who do not experience deprivation do engage in criminal activities (Brown et al., 1991).

Unlike functionalist theories, symbolic interactionists theories do not view crime as primarily a lower-class phenomenon. One of the strengths of this type of theory is that it cuts across social structure and attempts to explain crimes in all economic situations (Brown et al., 1991).

Four theories are discussed in this section: differential association, social learning theory, subculture of violence theory, and Miller's lower -class focal concerns. These theories share the assertion that groups influence the individual. Often times these theories are called social psychological theories because they incorporate both group and individual components (Brown et al., 1991).

Differential association. In 1939, professor Edwin H. Sutherland introduced the theory of differential association in his seminal work entitled Principles of Criminology (Barlow, 1990, p.74). Through the term differential association, Sutherland wanted to convey that the contents of the patterns presented in association would differ from subject to subject. Hence, he never meant that a simple association with criminals would cause criminal behavior. Instead, Sutherland focused on the content of communications with others. Sutherland saw crime as a consequence of values that were in conflict; thus, the subject was following culturally approved conduct that was disapproved by the larger American society (Williams & McShane, 1988, Costello & Vowell 1999).

The theory of differential association is composed of nine points:

1. Criminal behavior is learned.

2. Criminal behavior is learned in interaction with other persons in a process of communication.

3. The principal part of the learning of criminal behavior occurs within intimate personal groups.

4. When criminal behavior is learned, the learning includes (a) techniques of committing the crime, which are sometimes very complicated, sometimes very simple; (b) the specific direction of motives, drives, rationalizations, and attitudes.

5. The specific direction of motives and drives is learned from definitions of the legal codes as favorable or unfavorable.

6. A person becomes delinquent because of an excess of definitions favorable to violation of law over definitions unfavorable to violation of law.

7. Differential associations may vary in frequency, duration, priority, and intensity.

8. The process of learning criminal behavior by association with criminal and anti-criminal that are involved in any other learning.

9. While criminal behavior is an expression of general needs and values, it is not explained by those general needs and values, it is not explained by those general needs and values, since noncriminal behavior is an expression of the same needs and values (Williams & McShane, 1988, p. 52).

Succinctly, then, this theory postulates that criminal behavior is learned through association with others by interaction and communication. Two primary concepts are learned: the techniques for committing criminal conduct and the definitions that support such behavior (Williams & McShane, 1988).

Essentially, this theory is about group membership and peer association. Those juveniles who have group mobility often have different perspectives over time. Those who do not are influenced by one group of peers throughout the juvenile period. If these group are continuously against law- abiding behavior, continuity is increased.

Social learning theory. A significant modification of Sutherland's theory of differential association is Ronald Akers' "differential association-reinforcement" or social learning theory. This perspective is much broader than Sutherland's because it tries to locate the actual learning process that leads to criminal conduct. Akers' theory asserts that learning occurs through operant conditioning in both social and nonsocial situations. People learn the attitudes and methods conducive to criminal behavior from

the positive reinforcement (rewards) and from the negative reinforcement (punishments) that results from their behavior (Conklin, 1981, p. 258).

This theory is much like the preceding theory, except that it puts premiere importance on the reward system. One can still associate with the criminal element, but the reward system must show positive reinforcement to the offender. If the reward system changes, so does the likelihood of continuity.

Subculture of violence theory. Thorsten Sellin's protégé Marvin Wolfgang worked with the Italian criminologist Franco Ferracuti to extend the idea of culture conflict in their subculture of violence theory. This theory is not designed to explain every incident of violent behavior, but only those assaults and homicides that take place spontaneously in the heat of the moment (Brown et al., 1991)

Their theory can be summarized in the following way. Although persons in a subculture have values that differ from those of mainstream society, it is important to realize that they are not completely different from the greater part of society. Persons in the subculture of violence possess a willingness to use violence and share a favorable attitude toward its use. This attitude is most common in males ranging in age from late adolescence to middle age. Persons who engage in violent activity, but are not part of a subculture, are much more pathological and show more guilt and anxiety about their conduct than do members of the subculture (Williams & McShane, 1988).

Miller's lower -class focal concerns. Walter B. Miller was an anthropologist extraordinaire, who was familiar with ethnography, a research method based on the direct observation of social groups in their natural settings. Using the ethnographic approach,

Miller postulated that middle-class values were less important to gang criminality than others had previously reported. Thus, Miller's ideas were more conflict-oriented than were the consensus ideas of others such as, Cohen (1955) and Cloward and Ohlin (1960) (Williams & McShane, 1988).

In essence, Miller viewed society as being composed of groups, which although sharing many values, had otherwise differing lifestyles and norms. Miller asserted that the lower class was simply a separate culture with different lifestyles and norms; the lower class simply had a set of expectations and values that were different from the middle class. Because the dominant culture revolved around middle- class values, the existence of these different values was enough in itself to bring the lower class into conflict with middle- class values (Williams & McShane, 1988).

A large portion of these lower-class values provided many youths with the proper behavior and roles. These values created male behavior that was criminal by middle-class standards, but that was normal by lower- class standards. Miller asserted that these themes provided focal concerns for the male role by concentrating on the importance of certain attributes. He typified these attributes as emphasizing trouble, toughness, smartness, excitement, fate, and autonomy (Williams & McShane, 1988).

Furthermore, in studying lower-class life, Miller observed that a male figure was often absent from the home and that the household was dominated by females. The dominance of females in this role created a desire for young males to assert their masculinity and practice being manly outside the home. The gang provided an

opportunity for young males to practice this role and to bond with individuals in the same position (Williams & McShane, 1988).

Overall, early socialization of lower- class males into female- dominated households with lower- class values and poor male role models persists over time. The impact of this socialization has impact throughout the life course of the juvenile.

Social Control

Like social learning theories and conflict theories, social control theories revolve around the process of socializing people. For these theories, the propensity for deviance is a product of social processes that are delineated. The common ground, however, abruptly ends there. Control theories can be sharply contrasted with other theoretical positions, even those that are similarly classified as social process explanations of deviance (Brown et al., 1991).

Each variation of the control approach is based on the premise that criminal behavior is automatic. It is asserted that, if left unattended, people will pursue self-interests rather than those of society. Only by stepping in and nurturing individuals into a controlled social environment can they be molded into conformity. Viewed from this vantagepoint, society is remarkably successful in pushing its citizens from their deviant state of nature to law-abiding behavior. Other social process approaches, including learning and culture conflict theories, assert a contrasting viewpoint. They believe that human nature is essentially good and that criminal conduct arises only as a consequence of aberrant environmental circumstances. Thus, these theories believe that crime is

environmentally produced behavior. Control theory, however, sees criminal behavior as a predictable behavior that society has failed to impede (Brown et al., 1991).

Conflict Theory

Conflict theorists share the basic assumption that societies are more appropriately characterized by conflict than by consensus (Williams & McShane, 1988). Conflict theorists focus on power and social inequality as the primary characteristics of society. They assert that the state's machinery of social control represents the interests of the wealthy and powerful. These persons determine the basic laws whose enforcement is essential to maintaining their own power (Henslin, 1998).

According to conflict theorists, the notion that the law is a social device that functions impartially and administers a code shared by all is a cultural myth advanced by the capitalist class. In contrast, proponents of conflict theory see the law as an instrument of repression, a tool designed to maintain the elite in their privileged position. Because the working class can rebel or overthrow the current social order when its members get out of line, they are arrested, tried, and imprisoned (Henslin, 1998).

In addition, the criminal justice system does not focus on the owners of major corporations and the harm they do to major portions of the population with unsafe products, wanton pollution, and price manipulations, but instead concentrates its energies against violations of the working class. The criminal activity of the capitalist class cannot be completely ignored, however, if the violations become too flagrant, the working class may rise up in revolution. To prevent this, a violation by a member of the capitalist class is occasionally brought before the court. The media attention given to the

case helps to stabilize the social system by giving visible evidence of the fairness of the justice system (Henslin, 1998).

In most cases, however, the elite bypass the courts altogether, appearing instead before some tribunal with no authority to imprison. Most crimes concerning the illegal sale of stocks and bonds, price fixing, restraint of trade, and collusion are handled by a select group who are directed by people from wealthy backgrounds who understand the intricacies of the corporate world. Thus, the typical sanction is often a token fine. In contrast, the property crimes of the masses are dealt with by courts that do have the power to imprison. The street crimes perpetrated by the poor threaten not only the sanctity of private property but, more importantly, the positions of the powerful (Henslin, 1998).

Conflict theories can be viewed as one of two general types: conservative or critical radical (Williams & McShane, 1988).

The conservative conflict perspective. The major theme of conservative conflict theories is that of power and its use. Adherents of this approach assert that conflict emerges between groups attempting to exercise control over particular issues and situations. Thus, to conflict theorists, social issues are akin to fields of combat, with opposing armies fighting to see who will prevail. In this fight, resources are vital. It is the control of resources that allows persons to successfully wage war and to emerge victorious in a particular event (Williams & McShane, 1988). Many of these issues arise out of lobbying by some group or through the regular business activities involved in the political process. In each case, a decision will be made to take one course of action over

another. Often, several groups have an interest in the outcome of the decision, with all groups trying to exert influence for their cause. The amount of influence they have is a direct result of the resources the group has available. Thus, power to affect decisions is a powerful resource (Williams & McShane, 1988).

Because power is synonymous with resources, it seems obvious that those who are in the upper social classes will be the most powerful members of society. Further, they have much more influence over social decisions and the imposition of values than the lower classes. This helps to explain the presence of a dominant middle- class value system in the United States (Williams & McShane, 1988).

According to conflict theorists, law is a valuable resource. If a certain group's values are ingrained in the law, they can use that law, along with police enforcement to perpetuate their beliefs and way of life. Those who oppose these beliefs are more likely than others to be the target of enforcement agents (Williams & McShane, 1988).

Theories by George Vold and Austin Turk characterize this form of conflict theory. Vold constructed a theory, that focused on the group nature of society and various competing interests of those groups (Williams & McShane, 1988). Vold stated that "groups come into conflict with one another as the interests and purposes they serve tend to overlap, encroach on one another, and become competitive" (Vold cited in Williams & McShane, 1988 p. 99).

Vold insisted that groups must be watchful of their interests and ever ready to defend them. Thus, groups are engaged in a long-term struggle to maintain their position in relative comparison to other groups. With this in mind, Vold discussed the presence of

conflict in the criminal law, ". . . The whole process of lawmaking, law breaking, and law enforcement directly reflects deep-seated and fundamental conflicts between group interests and the more general struggles among groups for control of the police power of the state." (as cited in McShane & Williams, 1988 p. 99). Vold observed that because minority groups often do not have the ability to greatly influence the legislative process, the behavior is frequently legislated as criminal (Williams & McShane, 1988).

Another conflict theory based on the idea that social order is a product of powerful groups trying to control society was developed by Austin Turk. This control is expressed by placing values into law and then by having law enforcement agencies enforce that law. Turk began his work on conflict theory with an article in which he called for the study of criminality as opposed to criminal behavior. He asserted that the only explanation for criminality is located in the criminal law; thus, he proposed the study of criminal law and its relationship to a definition of criminal status. His primary concerns were to identify the conditions under which a person would be defined a criminal in an authority-subject relationship. Turk postulated that crime is a status that is given to norm resisters whose perception of social norms and reality is not adequate to anticipate the result of their behavior (Williams & McShane, 1988).

Turk's ideas about authority-subject relationships remain an important element in his work. He has asserted that it is a fact of life that authorities must be reckoned with, usually necessitating a permanent adjustment of the subordinate to the powerful. According to Turk, there are two major ways in which control can be exerted over a community. The first is physical force, or coercion. The more authorities must use force

to control a society, the more difficult it is to control that society. Thus, a balance based on consensus-coercion must be maintained by the powerful members of society (Williams & McShane, 1988).

The second way to control society is much more subtle. This form is represented by the control of legal images and living time. The law itself can be viewed as an entity that is more important than people. In addition, there are two types of law: (a) the official list of undesirable behavior and their associated punishments (b) and the established rules for moving people through the criminal justice system. A legal process that is constructed in favor of the powerful provides a high degree of subtle control. Control of living, however, is a concept Turk developed in the 1970s. He asserted that, after a period of coercion, a society will adjust itself to new rules. As time goes on, the citizens who were part of the old society will die out. The remaining people know only the existing style of government and thus are not likely to compare the old and the new societies. As a result, there will be little questioning of the laws of the new social order (Williams & McShane, 1988).

Turk's propositions lead to a number of assertions about criminality. First, higher crime rates are to be expected when physical coercion is used in place of more subtle forms of control. Second, the greater the powers of the groups in control the higher the rate of criminalization for the less powerful. Finally, if those with little power organize, there is an increased likelihood of conflict with the authorities, with commensurately higher crime rates (Williams & McShane, 1988).

The radical conflict perspective. Most current forms of radical conflict theory can be traced to the writings of Karl Marx. Although Marx said little about crime, many radical criminologists have used his basic model of society to explain criminal behavior. Marx viewed conflict in society as being a consequence of a scarcity of resources and an inequality in the distribution of those resources, especially power. This inequality fostered a conflict of interest, those with power and those without. By the time of the Industrial Revolution, conflict had developed between the two economic classes of society, the working class, known as the proletariat, and the dominant nonworking owners of wealth, known as the bourgeoisie (Williams & McShane, 1988).

The primary theme in this class conflict was the control of the means of production. As the class in control exploited the labor of the working class, a struggle developed. Marx asserted that a group's position in society shaped its consciousness of the society; thus, the proletariat was led to believe that the capitalist structure was in their best interest. He called this idea false consciousness. As members of the working class became aware of their common position, they would increasingly join together and initiate a conflict against the bourgeoisie. This conflict would grow into a revolution, which would overthrow the ruling class and allow for a classless society to exist (Williams & McShane, 1988). Radical criminologists contend that the class struggle affects crime in three significant ways. First, they assert that the law itself is a tool of the ruling class. The definitions of crime found in the law are a reflection of the ruling class and are designed to perpetuate their domination. Concomitantly, the general behavior of

the ruling class is not placed under the rule of criminal law and instead is found under administrative and regulatory laws (Williams & McShane, 1988).

The second basic position of radical criminologists views all criminal behavior in capitalist nations as the result of a class struggle that creates an atmosphere of individualism and competition. The emphasis placed on the procurement of wealth leads to antagonism between the classes. Even violent crime is seen as the consequence of the severe conditions under which those in the working class must live. Thus, for the working classes, it is their exclusion from ownership of the means of production that creates a social system conducive to criminal behavior (Williams & McShane, 1988).

Lastly, in the late 1970s,Richard Quinney and Steven Spitzer discussed the problem of a surplus labor force in capitalist societies. Surplus labor assures that wages will be low, but a surplus labor force that is too large can cause many problems. Spitzer listed five types of populations considered to be problematic.

1. The poor that steal from the wealthy.
2. Those who will not work.
3. Those who abuse drugs.
4. Those who refuse to be educated do not lead a familial life.
5. Those who espouse a non-capitalist society (Williams & McShane, 1988).

If the problem group does not get to loud or pose an immediate threat to those in charge, the ruling elite will have little need to expend their valued resources on their control. However, if the group is vitriolic and active, they, pose a great threat to the

ruling elite, and controlling them becomes critical. These groups receive a large portion of the control agents'' resources (Williams & McShane, 1988).

The implications for continuity are that there is a constant struggle between the haves and the have -nots. Continuity occurs because of an inherited position at birth. The extent of victimization of the haves over the have- nots increases as those in power criminalize certain behaviors. The elites will criminalize any organized behavior of the poor; for example, the rich have criminalized the drug network of the poor. As long as the power structure remains the same there will be continuity

Criminal Career Research Projects.

This section provides an overview of criminal career research projects. This overview is based on four well- known research programs: the Rand Corporation studies directed by Peter Greenwood; the Philadelphia birth cohort project conducted by Wolfgang, Figlio, and Sellin; the Racine, Wisconsin studies directed by Lyle Shannon; and the Carnegie Mellon incapacitation project conducted by Alfred Blumstein (Petersilia, 1980).

The Rand Corporation Habitual Criminals Program

Since 1974 Rand has conducted a number of longitudinal studies enacted to give new insights concerning serious habitual offenders. Their studies specifically focused on adult criminals who participate in serious predatory crimes over extended periods of time. The primary objectives of the studies were to determine the number of persons in the habitual offender population, describe the characteristics of these offenders, and examine their interactions with the criminal justice system. As the research project progressed, the

focus has been influenced by an increasing interest in incapacitation as a policy goal and a concentration on career criminals as a specific means to reduce the prevalence of criminal behavior (Petersilia, 1980).

Two projects conducted by Rand, are particularly relevant to this study. The first is Criminal Careers of Habitual Felons (1974), which is concerned with the criminal careers of 49 prison inmates committed for armed robbery serving at least a second term. The data were procured in interviews with the offenders, along with their official records (Petersilia, 1980).

The interview questionnaire was highly structured and asked the respondents to recall events in their criminal careers. The instrument was administered in three sections corresponding to the juvenile, young adult, and adult career periods. Each period section contained approximately 200 questions which delved into such areas as family relationships, sources of income, frequency of criminal activity, arrests and convictions, criminal motivations, methods of planning criminal acts, involvement with drugs and alcohol, use of violence, and postrelease behavior patterns (Petersilia, 1980).

Official records were used to assess reactions of the criminal justice system to the offender and to test the validity of some of the self-report data. When a comparison was made between the two data sets, the results showed that about 75% of the official arrest and conviction data were correct (Petersilia, 1980).

A sample consisting of only 49 respondents is too small to permit a meaningful inference about the larger offender population. Because the sample was small, and

limited in its stringent requirements for inclusion they are not highly generalizable (Petersilia, 1980).

The second study conducted by Rand is titled Doing Crime: A Survey of Californian Inmates (1980). This study involved a survey of 624 male inmates taken from five California prisons. The instrument was anonymous and self-administered. The participants were randomly selected and judged to be highly representative of all California prison inmates. The survey focused on such diverse areas as an offender's criminal history, juvenile history and family background, employment history, motives for engaging in criminal activity, and attitudes toward the criminal justice system (Petersilia, 1980).

The self-report data were used to investigate individual patterns of crime and to estimate the prevalence, offense rates, and arrest rates for major felonies. This material was also used to analyze the characteristics of different types of career criminals (Petersilia, 1980).

The Philadelphia Birth Cohort Study

Wolfgang, Figlio, and Sellin authored a renowned cohort study titled Delinquency in a Birth Cohort (1972). Their study focused on the age of onset, the progression or cessation of criminal activity, and the relationship of these phenomena to an offender's personal and social characteristics (Petersilia, 1980).

The cohort was made up of all males born in Philadelphia in 1945 who had lived in the city from at least ages 10 to 18. The data were collected in three stages. In the first phase, approximately 10,000 individuals were located, using police, court, school, and

selective service records. One objective was to estimate the likelihood that an individual would become an officially recorded delinquent; that is, to separate the cohort into delinquents and nondelinquents. Thus, comparisons could be made between delinquents and nondelinquents on the basis of social, economic, and personality variables. The first phase of the study analyzed the relations between such background variables as race, socioeconomic status, types of schools attended, residential moves, grade level, I Q, and delinquency. Findings were also presented on the age of onset of delinquency and on crime switch in the delinquent career (Petersilia, 1980).

In the next phase, a sample of 971 (9.7%) of the original cohort was selected to be followed to age 26 and to be interviewed. Official records were procured for all members of the sample. This phase permitted a study of the relationship between delinquency and adult crime. Although the researchers had planned to investigate the entire follow-up-sample for a more in-depth analysis, many could not be located. Approximately 57%, or 567 persons, were found and interviewed. Unfortunately, many of the interviewed subjects differed in some respects from those not available for interviews; they tended to be less serious offenders, white, and of higher socioeconomic status (Petersilia, 1980).

In the last phase, police, court, and prison records were used to complete official criminal histories on the 9.7% follow-up sample to age 30. Only selected material was published from this phase (Petersilia, 1980).

The Racine Wisconsin Birth Cohort Studies

Lyle Shannon and his colleagues (1988) at the University of Iowa conducted a longitudinal birth cohort study of crime in Racine, Wisconsin. Racine is an industrialized

city made up of approximately 100,000 people. Various methods were used to analyze how individuals proceeded through various stages of criminal conduct. Many subjects were offenders throughout the study period; others relinquished their criminal careers at various stages; and still others did not have contact with the police at least until the age of adulthood. Shannon and his associates tried to predict which categories of subjects were more likely to be involved in delinquent conduct, to cease delinquent behavior as they mature, or to continue in their criminal ways (Petersilia, 1980).

Shannon followed three mixed-sex birth cohorts. The 1942 cohort was made up of 1,352 people; the 1949 cohort was made up of 2,099 people; and 1955 cohort was made up of 2,676 persons. Data collection was terminated in 1974. The effective period for which the 1942 cohort could garner a police contact record was the 27- year span between the ages of 6 and 32, for the 1949 cohort; between the ages of 6 and 25 in the 1949 cohort; and for the 1955 cohort, between the ages of 6 and 21. At a later date, the 1955 cohort was extended to the year 1988, thus including the ages of 6 through 33. The cohort members were first identified from the files of the Racine Unified School District. These files identified all children in public or private schools. Furthermore, each cohort member's length of residence was determined, utilizing such sources as telephone directories, city directories, and information from family and friends. Subjects with continuous residence were defined as those who had missed no more than 3 years residence between the ages of 6 and the data cut-off date. In the 1942 cohort, there were 633 subjects with continuous residence; in the 1949 cohort, there were 1,297 subjects; and in the 1955 cohort there were 2,149 subjects. Which cohort to use depended on the

statistical technique under consideration. The idea that subjects with continuous residence in Racine were somehow different from others in the study was explored (Petersilia, 1980).

The name of each subject in the study was checked against the files of the Racine Police Department to ascertain whether that person had a police contact. The contacts included Part I and Part II crimes of the Uniform Crime Report, as well as juvenile status offenses. In addition, in depth interviews were conducted with the 1942 and 1949 cohort members. Obtained in the interviews was information concerning sociodemographics, employment, family variables, attitudes, and peer associations (Petersilia, 1980).

The three books written by Shannon from this data set are Criminal Career Continuity (1988), Changing Patterns of Delinquency and Crime (1991), Alcohol and Drugs, Delinquency and Crime (1998). In addition, a number of journal articles have been written on a number of diverse topics using this data set. Pillai, (1981) wrote an interesting article that discusses the environmental factors associated with intra-urban delinquency. Also, in an influential article written by Smith & Gartin (1989), the authors discuss the influence of arrest on future criminal activity and imprisonment. Each of these works contains a wealth of knowledge on the chronic offender.

Carnegie-Mellon's Research Program on Incapacitation

The Carnegie-Mellon study (1979), is an examination of adult careers only. The primary purpose of this study, directed by Alfred Blumstein, was to understand an individual's criminal activity in terms of a criminal career, counting the start of a career as the first crime committed and the end as the last crime committed. Within a criminal

history, the offender commits crimes, accumulates arrests, is convicted after some of those arrests, and in many cases is arrested. Thus, a criminal career can be characterized by a set of variables: the number of crimes committed per year per individual; the probabilities of arrest for a crime, of conviction after arrest, and of incarceration after conviction; and the length of the career (Petersilia, 1980). Blumstein's efforts relied primarily on an FBI data tape containing the official criminal histories of all 5,364 adult offenders arrested at least one time in 1973 in the District of Columbia for the crimes of homicide, rape, aggravated assault, robbery, burglary, grand theft, and auto theft. Records for all prior arrests are available, as well as that for following arrests that occurred anywhere in the U.S. until October, 1975. Using these data, Blumstein developed a model of the career criminal, and derived various career patterns (Petersilia, 1980).

Review of Findings

The question of how to identify individuals who will go on to have criminal careers contains four subsidiary questions:

> What percentage of the population will have a police contact as an offender? What percentage of the population will have repeated police contacts? How much crime can be attributed to chronic offenders? On what basis can we predict a particular juvenile will become a repeat offender? (Petersilia 1980).

1. Estimating the prevalence of offenders: It is reasonable to assume that offenders who pursue a career in crime will sooner or later have a police contact. Career criminals can be seen as those offenders with police contacts who are repeatedly arrested,

convicted, and incarcerated. Estimating the prevalence of career criminals is a primary research task. Interpreting the estimates requires an understanding of how many people have police contact (Petersilia 1980).

The Wolfgang (1972) and Shannon (1988) studies have proved to be a reliable approach to the estimation of known offenders in the general population. These studies suggest that approximately one-half to two-thirds of the general population will have at least one police contact before the age of 30. Wolfgang's study found the likelihood of a male born in 1945 who resided in Philadelphia having a police contact for a nontraffic offense is to be 47% by the age of 30. In Shannon's cohorts, the numbers were 69% for the 1942 cohort; 67% for the 1949 cohort; and 59% for the 1955 cohort (Petersilia 1980).

The two projects used different definitions of police contact, and that may explain the slight difference in results. Unlawful behavior of a minor nature was included in both studies. In Shannon's study, the term police contacts included traffic violations as well as juvenile status offenses. Eliminating these minor contacts along with all female cohort members from the Racine study greatly reduces the differences in the incidences of police contacts reported previously (Petersilia 1980).

In Wolfgang's study, the variable, socioeconomic status was strongly related to whether a juvenile had a police contact. Twenty-six percent of the boys from high socioeconomic neighborhoods had a police contact, compared to 45% of the boys from less affluent neighborhoods. Other factors related to having a police contact include high social mobility, poor school performance, and low IQ (Petersilia 1980).

Shannon's study found that juveniles with at least one police contact were slightly more likely to live in a single- parent household, have a negative view of the police, and have peers who have at least one police contact by the 12th grade (Petersilia 1980)

2. Estimating the prevalence of criminal careers.: Some juveniles receive one contact but no more. The four birth cohort studies reviewed here suggest that about 33% of those who had a police contact do not have another. Furthermore, these studies also suggest that, if a second police contact occurs the probability that the juvenile will have a third police contact is fairly high, at 70%. (Petersilia, 1980).

3. Volume of crime attributable to career criminals: The four birth cohort studies also provided estimates of the proportion of recorded crime attributable to career criminals. In the 1942 cohort of the Racine study, 1% of the males had four or more felony contacts, but his small group accounted for almost 30% of such contacts. In the 1949 cohort, 3% of the males having four or more contacts accounted for nearly 50% of the felony contacts. In the 1955 cohort, 6% of the males having four or more felony contacts accounted for 70% of the felony contacts. Similar results were found in Wolfgang's study. Six percent of the Philadelphia cohort with five or more police contacts was accountable for 51% of all officially recorded police contacts during the juvenile period. When the cohort was followed to age 30, the chronic offenders consisted of about 15% of the cohort, but were charged with 74% of all the official crime by cohort members (Petersilia 1980).

The inmate study conducted by the Rand Corporation supported the contention that a group of chronic offenders commit a disproportionate number of crimes. A small group

of offenders, (appropriately characterized as career criminals) who share many of the same characteristics were found to have committed a substantial portion of all crimes. They were offenders who reported that they had been involved in criminal activity most of their lives, who regarded themselves as professionals, and who foresaw a likely return to criminal activity. Inmates who held these characteristics reported committing a disproportionate amount of crime while not incarcerated. The researchers classified 25% of the offenders as career criminals and found that this group committed approximately 60% of the armed robberies, burglaries, and auto thefts committed by the entire sample. Furthermore this group of career criminals were involved in about 50% of the assaults and drug sales (Petersilia, 1980)

4. Juvenile criminality and criminal careers: Most juveniles who have contact with the police do not become career criminals. Juvenile delinquency does not automatically lead to adult criminal behavior. A primary issue in the study of criminal careers is identifying the factors that discriminate between people who do and people who do not go on to have extended criminal careers. Social scientists have long hypothesized that family background and education, early delinquency, drug and alcohol involvement, and employment performance are all related to a sustained pattern of criminal activity (Petersilia, 1980).

Both the Wolfgang study the Shannon studies have found the characteristics of juvenile delinquency to be the most reliable predictor of an adult criminal career. Those who engage in delinquent behavior as juveniles are more likely to have an adult criminal career than those that do not (Petersilia 1980).

In the Philadelphia cohort, the likelihood of having a police contact between the ages of 19 and 26 is about .43 for those who were juvenile offenders, but it is only about .12 for those who were not. This is consistent with the Rand studies, which found that the cohort members who committed a serious crime before age 16 were more likely to have more adult crime, commit more types of crime, commit violent crimes at a higher rate, and hold professional criminal attitudes (Petersilia 1980).

In the Racine study, the overwhelming predictor of the seriousness of juvenile delinquency was age at first contact. Approximately 55% of the 57% explained variance in juvenile seriousness scores in the 1942 cohort was accounted for by the age of first police contact (Petersilia, 1980).

CHAPTER 3

A THEORY OF JUVENILE DRUG USE AND CRIMINAL CAREER CONTINUITY

This study is about the transition from juvenile delinquency to adult criminal behavior. (see figure 1 in appendix).. Transition is any movement from one phase of a life course to another. For example, the change from adolescence to young adulthood is a transition in the life course. In this study the focus is on juveniles, who are adolescents aged 6-17. The purpose of this study is to examine the transition from juvenile delinquency to adult criminality within the context of drug use.

A criminal career is described as the transition from an extended period of juvenile delinquency to an extended period of adult criminality. This most often involves a small number of chronic offenders who commit crimes throughout the life course in disproportionate numbers. Theories designed to explain career criminality involve a number of factors. For example, the functionalist perspective is concerned with stability over time. Cultural characteristics such as values, norms, and expectations, remain constant. Change occurs slowly and in small increments. Thus, events have continuity with the past, including criminal career continuity. In symbolic interactionism, the theorists are concerned with the early socialization of lower -class males into female-dominated households with lower- class values and poor male role models. They assert that this socialization has impact throughout the life course of the juvenile.

According to life course theory, early socialization experiences exert considerable influence on the conformity to expected societal rules and norms. Childhood and teenage life experiences within the bounds of law are believed to facilitate normal adult careers,

which are not interrupted by episodes of deviant and criminal behaviors. Thus, juveniles who have come into contact with law enforcement for breaking the law are more likely to have had socialization experiences that are counter to societal expectations of civil and legal behaviors. For a large proportion of the juveniles who have not come into contact with the legal system, the transition to adulthood is normal and uninterrupted by institutional restraints (Siegel, 1995; West & Farrington, 1977).

Juveniles may come into contact with the legal systems for a number of illegal behaviors. In particular, among a number of illegal behaviors, for which juveniles have contact, drug abuse has been isolated for special scrutiny by political and social agencies for various reasons. First, drug use is believed to lead to other criminal activities. Second, the use of drugs is addictive and hence likely to continue for a long period. Third, the pervasiveness of drugs in modern industrial societies and its widespread consumption among the young have brought about concerns with regard to the health of future generations. These concerns are shared by many social and economic institutions that have a revived interest in examining the mechanisms of social control. It is well known by both industry and social science experts that drug use degenerates individuals as well as society as a whole. It diminishes a young person's likelihood of staying in school and learning complex tasks as well as completing tasks safely on the job (Inciardi et al.1993; Senate Task Force, 1988; Shalala, 1995; Wilson, 1990). Thus, juveniles who abuse drugs and who cannot function at a normal level diminish ethical standards of conduct and industrial productivity in the future. In effect, the use of drugs by juveniles reduces their life chances and stifles their ability to compete with non- drug users in the United States

as well as abroad This has brought many social and law enforcement agencies into the center of one of the most important political, social, and economic issues of our time.

The likelihood of continuity from delinquent acts as a juvenile into committing criminal behaviors as an adult, including that of drug use, is a major concern to those in the criminal justice system. The effectiveness of sanctions for breaking the law as a juvenile is of crucial importance in reducing the likelihood of committing crimes as an adult. This raises issues with respect to the effectiveness of deterrence on juvenile delinquency. In particular, it is important to examine whether deterrence for drug use plays a significant role in reducing future adult criminal activities. The focus is on a category of juveniles who come into contact with the criminal justice system, with special emphasis placed on the many drug users found in this group. The use of drugs in the early part of life is likely to shape adult criminal behavior (Shannon, 1998). This study concerns the transition from juvenile delinquency to criminal behavior in adulthood in particular, the nature of transition among those juveniles who used drugs as opposed to those who did not.

In this chapter a number of hypotheses are proposed that relate to the likelihood of adult criminal behavior with respect to transition, drug use, and deterrence.

This chapter begins with an examination of the three theoretical concepts of the study, transition, drug use, and deterrence. Next, a synthesis of the components is made in order to build a model.

It has been asserted by many traditional theorists (Cohen, 1955; Sutherland, 1924) that early criminal socialization leads to future delinquent behavior. This line of thought has

been reasserted in modern times by many life course theorists who look at the stages of a person's life from birth to death. Theoretically, the term life course refers to the successive role and status changes that each individual sustains in society as a result of growing older (Bynum & Thompson, 1996). According to life course theorists, (Thornberry, 1987; West & Farrington, 1977) aberrant or unsuccessful socialization oftentimes leads to juvenile delinquency. In particular, early socialization into deviant lifestyles restrains normal socialization processes into adulthood. Juvenile delinquency has a high probability of continuance into adulthood because these youths are socialized in a way that facilitates deviant ways of thinking and looking at the world. This view initiates and strengthens their commitment to delinquent behavior that begins in childhood and remains into adulthood. This idea has been succinctly stated in the life course theory of David Farrington. In his longitudinal study (1982) of 411 London boys entitled, Cambridge Study in Delinquent Development, Farrington asserted that childhood factors predict teenage antisocial behavior and adult dysfunction. Thus, according to Farrington, there is continuity in criminal behavior (Siegel, 1995) .

Life course theory suggests that juveniles who have come into contact with the law are far more likely to participate in adult criminal activity than those who have not come into contact with the law. In particular, those who had a drug contact are more likely to have adult criminal activity than those are who did not use drugs but had a police contact for other unlawful behaviors.

In addition, life course theories, as well as other theories of crime and delinquency (differential association, drift theory) suggest that development of a criminal career is a

product of long -term socialization into deviant behaviors. The process of socialization takes place in a number of varied settings, such as the family, peer groups, and social agencies of law and order. The effects of socialization are believed to be long term and strong if socialization proceeds uninterrupted. Continuous residence is seen as an important social factor in moderating the effects of socialization variables on the likelihood of adult criminal careers.

Deterrence

In an effort to dissuade juveniles from committing crimes in the future the legal system has employed many types of deterrence, which uses the threat of punishment to influence future behavior. Deterrence is a method of social control used by the courts throughout the life course of the offender. It contends that people are rational, that they have free will, and that they are hedonistic, in that they are constantly trying to reduce their pain while increasing their pleasure. Thus, people are capable of making choices in a logical, calculating manner through examining the costs and benefits of alternative courses of action. Having free will, they can behave as they choose (Brown et al., 1991).

Jack P. Gibbs (1975) in his classic text Crime, Punishment, and Deterrence, offered a concise definition of deterrence. He stated that, "deterrence can be thought of as the omission of an act as a response to the perceived risk and fear of punishment for contrary behavior"(p.2)

In this text, Gibbs illuminated Beccaria's three conditioning factors that have become the hallmark of modern deterrence theory. Maintaining that people are rational, hedonistic, and that they employ free will, crime is seen as a function of the certainty, celerity, and severity of punishment. Beccaria contended that through the proper

manipulation of these factors, crime could be eliminated. To neglect these factors, or to apply them in an arbitrary manner, is to encourage crime. As potential law violators fail to believe in the irrevocable negative consequences of criminal behavior, they become less likely to conform to society's rules. Persons who desire their neighbor's property are more likely to steal that property if they believe that the likelihood of punishment seems relatively low, temporally distant, or not severe (Brown et al. 1991).

The Drug Crime Relationship

The extent of victimization of the haves over the have- nots increases as those in power criminalize certain behaviors. The elites criminalize many of the organized behaviors of the poor; for example, the rich have criminalized the drug network of the poor. Conflict theorists stress how drugs are used as a political tool. To criminalize the use of certain drugs that are common among groups who are perceived as a political threat allows for the use of the state's police force against those groups. (Henslin, 1998) When developing a theoretical model of criminal career continuity, the researcher must realize that biopsychosocial factors influence crime. Thus, certain biological effects are produced by the drug itself, coupled with the psychological dependence users often develop to a drug, and with the social and cultural facilitators of drug abuse.

Many social scientists have found that drug abuse is associated with a variety of psychological conditions, such as low self-esteem, low self-confidence, low self-satisfaction, a greater need for social approval, high anxiety, low assertiveness, greater rebelliousness, low personal control, low self-efficacy, and an impatience to acquire adult status (Schinke,Botvin, & Orlandi, 1991). Pharmacological factors become important in

reinforcing and upholding regular patterns of drug abuse. The body becomes accustomed to having these drugs in its circulatory system and relies on these substances to establish a small degree of normality. Many social scientists assert that substance abuse is part of a lifestyle pattern and value orientation. Juveniles who smoke, drink, or use drugs also tend to receive lower grades and are not involved in adult sanctioned activities such as sports and clubs. Further, they are more likely than nonusers to display antisocial behavior such as lying, cheating, and stealing (Schinke et al. 1991).

Delinquency studies have asked juveniles whether or not they were under the influence of drugs and/or alcohol when they committed the crime(s) for which they were sentenced. In 1984 Hartstone and Hanson questioned 114 boys incarcerated for a violent offense who also had been previously convicted for a felony. Half of the boys stated that uses of either alcohol (29%) or other drugs (33%) contributed to their violent tendencies; as these numbers suggest, some boys reported use of both drugs and alcohol. Furthermore, 41% stated that they had used alcohol (17%) or other drugs (34%) immediately before the violent offense for which they were then incarcerated (Inciardi et al.,1993 p.46). Thus, those juveniles who were sanctioned for a drug offense are more likely to commit a crime as an adult than those who were sanctioned for other crimes as juveniles.

It is purported that those who are engaged in the business of distributing hard drugs are more likely to be involved in violent activities surrounding this business than those who are simply users. While it is true that many drug users are unemployed and poor, the majority of these offenders are involved in property crimes and not in crimes against persons. Thus, it is asserted that the business of selling hard drugs provides an

atmosphere conducive to violent tendencies. A sub hypothesis contends that those cohort members who were distributors of hard drugs are more likely to commit serious offenses than those who were simply consumers.

Much attention has been directed at marijuana users. It is a popular belief that alleged criminogenic effects prompted the criminalization of marijuana; early proponents of strict controls argued that the majority of marijuana users were also criminals. Using highly selective samples from hospitals and prisons, these researchers highlighted the marijuana habits of their subjects, thus simplifying an element of causality. This has become known as "reefer madness" research (Weissman, 1982). A second sub hypothesis states that those cohort members who as juveniles used marijuana, a soft drug, are not more likely to commit serious offenses than those cohort members who used hard drugs.

Synthetic Model

The drug model states that drug use is a biopsycosocial phenomenon that greatly influences the likelihood of committing criminal acts in the future. It is a component that brings the juvenile into contact with dubious characters and into an environment that promotes criminal career continuity.

The deterrence model states that future criminal conduct can be decreased or eliminated by the application of formal mechanisms of social control. These include such devices as probation, parole, or prison.

Life course theorists contend, as do other, more traditional theorists, that socialization of juveniles at an early age to the ways and means of the criminal lifestyle predisposes them to future criminal conduct as adults. Furthermore, life course theorists contend that

juveniles with a history of delinquency are more likely to commit crimes in the future because they have shown by prior conduct that they have successfully neutralized all impediments to desist. And also because the societal mechanisms of social control have been either loosened or removed.

The three components of criminal career continuity, life course theory, deterrence, and drug abuse, were brought together into a unified framework in this study. These components have been looked at individually; they are now examined together. Synthesizing the concepts allows for the study of the effects of each component in a systematic way, revealing the effects of the components in the model as a whole on the likelihood of transition from juvenile delinquency to adult criminality

The life course model is the first to consider. Let P(x) be the probability that a juvenile non-delinquent commits crimes in adulthood. I would postulate that this probability is low. This is especially true in relative comparison to delinquent youth who are more likely to commit crime in adulthood. Let this increase in probability of committing crime in adulthood be Δx. This component represents the additional likelihood of criminal continuity among juvenile delinquents. Let $P(x+\Delta x)$represent the probability of a juvenile delinquent going on to commit crimes in adulthood. These juveniles have a higher propensity to commit delinquent acts in the future than do non-delinquents, because they have demonstrated by prior conduct that they have effectively neutralized psychological as well as physical impediments to breaking the law. Thus, this behavior is rationalized by juvenile delinquents who have justified their criminal conduct.

Next, there are juvenile delinquents that come into contact with the law and experience deterrence. Thus, the deterrence component is added to the model for those delinquents who have been adjudicated in the past. Deterrence decreases the likelihood of committing a crime in the future. Let this amount of decrease in the likelihood of committing crimes be Δy; therefore, the likelihood of committing a crime for those juveniles who have been adjudicated is $P(x+\Delta x-\Delta y)$. Next, are those juveniles who have been involved in drug offenses. Drug use as a juvenile increases the likelihood of committing crimes of high seriousness in adulthood. Let this increase in the likelihood of commission be Δz. This component adds a dimension of criminality that facilitates and supports a deviant lifestyle.

Now the deterrence model can be synthesized with the drug model. In the first group are those juvenile delinquents who have been adjudicated for a drug offense $P[(X+ \Delta x - \Delta y) +\Delta z]$. In the second group are those juvenile delinquents adjudicated for non-drug offenses $P(X+ \Delta x- \Delta y)$. The probability $P[(X+ \Delta x - \Delta y) +\Delta z]$ of committing a crime of high seriousness as an adult for juvenile drug offenders is higher than $P(X+ \Delta x- \Delta y)$ for non- juvenile drug users. Thus, the propensity to commit future crimes is higher for the drug users than for the non-drug users.

Table1
Hypotheses and Sub-Hypotheses

1. Those juveniles who have come into contact with the law are far more likely to participate in adult crimes of high seriousness than those juveniles who have not come into contact with the law.	2. Those juveniles who had a drug contact are more likely to have adult crimes of high seriousness than those who did not use drugs but had police contact for other unlawful behaviors. a. Those cohort members who were distributors of hard drugs are more likely to commit crimes of high seriousness in adulthood than those who were simply consumers. b. Those cohort members who used a hard drug as juveniles are more likely to commit adult crimes of high seriousness than those members who used soft drugs.
3. Those juveniles who have been sanctioned for a crime are less likely to commit of high seriousness as an adult.. a. Those juvenile drug users who were sanctioned for a drug offense are more likely to have adult crimes of high seriousness than those who were sanctioned for other crimes as juveniles	

Competing Explanations (Controls)

Life course theorists contend that it must also be recognized, that youths who have a history of juvenile delinquency are more likely to commit crimes in the future. This is because the mechanisms of social control applied to youths are lessened or removed as they move into young adulthood. These mechanisms include the family, school, and

church. Terence Thornberry (1985), another life course theorist, has suggested that the onset of criminal conduct can be traced to a breakdown of the social bond during adolescence, marked by a weakening of attachments to parents, commitment to school, and belief in conventional values. Thornberry's view also recognizes the impact of social class position and other structural variables on criminal behavior. For example, juveniles living in socially disorganized areas have the greatest risk of a weakened social bond and subsequent delinquency (Siegel, 1995). Thus, according to Farrington, adolescents exposed to effective child rearing, including consistent discipline and close supervision, tend to build up internal inhibitions against offending in a social learning process.

Social Disorganization

Social disorganization theory asserts that crime rates are linked to neighborhood ecological characteristics. Crime rates are high in transient neighborhoods in which the traditional ways of social control have been eliminated. Many of the larger cities in the United States are unable to provide essential services such as health, care, education, and decent living quarters (Siegel, 1995).

Social disorganization theory views crime- ridden cities as ones in which residents are trying to leave as quickly as possible. Many residents are not concerned with community matters, so the common sources of social control the family, school, social service agencies-- are weak and disorganized. Personal relationships are strained because neighbors are constantly moving. Constant resident turnover weakens attempts to solve neighborhood problems and establish common goals (Siegel, 1995).

Clifford Shaw and Henry McKay first popularized social disorganization theory, both of the University of Chicago. They linked life in the inner city with the inclination to commit crime. Shaw and Mckay (1942) began their study during a period in Chicago's history that was typical of the transition-taking place in other large cities. Chicago had just experienced a population explosion fueled by a large contingency of immigrants. Congregating in the inner city, the new comers lived in poor housing and therefore encountered numerous health and environmental hazards. Soon physically dilapidated sections of the city developed (Siegel, 1995). As a result, the types and numbers of crimes increased in these urbanized areas (Eitzen & Timmer, 1985).

The variable used to measure the amount of social disorganization in a community is a dummy variable concerning inner city residence. It is well known by many theorists (e.g, Cloward & Ohlin, 1960; Merton, 1938; Sutherland,1924) that inner city residence often consists of a socially disorganized environment that breeds criminal activity.

Aberrant or Unsuccessful Socialization

Albert Cohen's work includes an example of a traditional criminological theory based on unsuccessful socialization. Cohen's (1955) work on delinquent gangs, Delinquent Boys: The Culture of the Gang, caused him to believe that the propensity to commit delinquent acts involves an inadequate socialization to mainstream norms and values. Cohen asserted that delinquent subcultures create and maintain value systems that are opposed to the dominant culture. They do this in an attempt to ridicule mainstream codes of behavior. According to Cohen, this is the real source of juvenile delinquency: a hostile and purposeful reaction against society in general (Eitzen & Timmer, 1985).

In another criminological theory that deals with socialization as the source of juvenile delinquency, Edwin Sutherland has described his differential association. His theory does not focus on the degree of socialization-- that is, whether or not it is adequate or inadequate-- but rather on the idea that this is a different type of socialization (Eitzen & Timmer, 1985).

To Sutherland (1924) differential association is a process in which delinquent behavior and values are learned in deviant groups. These criminal subcultures are not socially disorganized, as Shaw and McKay (1942) would assert, but rather, they are organized in stark contrast to society's dominant social and cultural organizations. In addition, each subculture has its own valued behavior and its own way of conferring status on its members. Juvenile delinquency is not viewed as being deviant at all in the context of the subgroup in which it is learned. In this context it is normalized by youth. Youths involved with others learn deviant values and criminal techniques, along with justifications for their behavior from other youths that value and reward this conduct (Eitzen & Timmer, 1985).

Another theoretical perspective that utilizes the idea of a different socialization is Sykes and Matza's (1957)-drift theory. Its basic tenets are that (a) both delinquents and nondelinquents are morally committed to mainstream norms but (b) delinquents differ from nondelinquents in using techniques to neutralize conventional norms when involved in criminal behavior (Landsheer & Hart, 1999). Sykes and Matza do not believe that delinquency is learned in a deviant subculture that rejects the dominant culture. Unlike Sutherland (1924), they do not believe that juvenile delinquency is the result of a

different socialization to a subculture that rejects larger society, but rather, that most delinquent subcultures adhere to conventional norms and values. What they learn in their different socialization are rationalizations for delinquent acts. This allows them to temporarily neutralize conventional social norms and drift occasionally into deviance (Eitzen & Timmer, 1985).

Walter B. Miller's theory (1958) of lower-class culture as a crime- generating milieu asserts, in opposition to Sykes and Matza (1957), that there is a distinct and recognizable lower-class culture-- attitudes, beliefs, values, schools, family, and neighborhood organization—that gives rise to aberrant juvenile behavior. For Miller, life in the inner cities is characterized by the eventual development of a lower- class culture that is transmitted from one generation to the next. Thus, people are socialized to a different culture and lifestyle (Eitzen & Timmer, 1995). The amount of deviance exhibited by peer group members can greatly affect the likelihood and type of deviance.

The evaluation of the socialization experience is measured by two variables both involving peer group association. It has long been known that peer group affiliation has influenced the likelihood of early criminal conduct as well as its continuity (Cohen 1955; Sutherland, 1924). The age and sex characteristics of the peer group in which delinquents are involved indicate peer group characteristics associated with delinquency. In this study at the sex and age composition of contacts involving more than one juvenile offender have been examined.

CHAPTER 4

METHODOLOGY

This study includes an examination of a number of broad research concerns dealing with the question are juveniles who are delinquents and drug users more likely to commit crimes as adults than those who are not? The study was designed to examine the effect of juvenile drug use on the likelihood of adult crimes of high seriousness. Of primary interest was to determine if whether deterrence has the same affect on drug users as it does on other types of violators.

Data and Sources

The data for this study were taken from the criminal career continuity project directed by Lyle W. Shannon (1981) at the Iowa Urban Community Research Center at the University of Iowa. This data set contains data on juvenile delinquency and crime for three birth cohorts in Racine, Wisconsin. The primary goal of Shannon and his associates was to predict which categories of juveniles are more likely to be involved in delinquent conduct and which factors cause cessation in delinquent behavior as they mature. (Petersilia, 1980) The three birth cohorts are for the years 1942, 1949, and 1955.

The birth cohorts (males and females) are made of 1,352 persons born in 1942, 2,099 persons born in 1949, and 2,676 persons born in 1955. The data and official police records collected on these cohorts encompass a period from 1948 through 1976, data on the 1942 cohort commencing in 1948 and that for the 1955 cohort ending in 1976. Data collection for each cohort started with the first police contact at or after the age of 6 and ended for the 1942 cohort when they were 33, for the 1949 cohort when they were 26,

and for the 1955 cohort when they were 22. Subsequently, the 1955 cohort was followed until the age of 33. In addition to checking the official police records for individuals in each cohort, Shannon conducted lengthy interviews with 899 persons from the 1942 and 1949 cohorts in the summer of 1976.

In formation concerning juvenile and adult complaints was read and coded from the files of the Juvenile Bureau and the Records Division of the Racine Police department under the guidance of the Iowa Urban Community Research Center's field directors. Reasons for police contact were coded into 26 basic categories based upon Part I and Part II offenses of the UCR.

The age of the individual at each time of contact and the date of each contact and police disposition are included in the data and allow the researcher to determine whether contacts and dispositions occurred in rapid succession with only a few days between them or whether they were spaced over time.

The subjects were chosen from the records of the Racine Independent School District. A subset of the Racine data was selected for the purpose of this study. This selection was necessary, given the specific focus of this study on the transition to adult criminal activity from juvenile drug abuse. Both adult criminal activity and juvenile drug use involve contact with the police. These contacts are recorded by the law enforcement agency and kept as police contact data. These individual- level police contacts range from no contact to one contact to several contacts. However, the last juvenile contact would be more strongly indicative of the transition to adult criminal activity than would earlier contacts. For this reason, this study has focused on the last juvenile contact. The objective of this

study was to assess the likelihood of transition to crimes of high seriousness as adults from juvenile drug abuse. The occurrence of a highly serious contact as an adult among several police contacts would indicate the transition to criminal activity in adulthood. For these reasons, this study used the last juvenile contact and ever contacts of high seriousness as an adult. In the Racine study, contact data on illegal substances were available for only the 1955 cohort. For this reason, the 1955 data were utilized in this study.

The analysis reported here examined the relationship between juvenile drug abuse and criminal career continuity. Because the 1955 cohort is considered the first to have potential for considerable contact with illegal substances, only this group was chosen for analysis. There are 2,676 persons in the 1955 data set. Because it was hypothesized that continuous residence provides a stable social milieu for socialization, only those with continuous residence were selected for inclusion in this study. A continuous resident is a person who has maintained continuous residence status in Racine from age 6 to 33. Those who did not meet the criterion of continuous residence were removed from analysis. This caused the removal of 453 subjects, with 2,223 remaining. (Interuniversity Consortium for Political and Social Research, 1995, p. 185; Shannon,b,p.1; Shannon, 1991, a,Codebook pg.6).

These data were organized into individual- level contact data, consisting of the type of police contact(s) as well as the age, sex, location, and date. Variables have been constructed that measure the number, types, and seriousness of contacts (Interuniversity Consortium for Political and Social Research, 1995). The data set used in this study has

information on the dependent variable, adult crimes of high seriousness, and the independent variables, sanctions, nature of drug use (hard drugs vs. soft drugs), nature of participation in illegal drug activity (consumer vs. distributor), and juvenile/adult contacts. The control variables used in this study are inner city residence, age group affiliation, sex group affiliation, and gender.

Operationalization of Variables

Crimes of High Seriousness

Crimes of high seriousness are violent crimes against persons. Since the early 1930s the FBI has developed data on crime from a network of law enforcement agencies across the United States. Each year the FBI summarizes these data into statistical tables and issues a Uniform Crime Report (UCR). A major advantage of the UCR is that standardized definitions of the main types of crime are used by all law enforcement agencies reporting from the various states (Bynum & Thompson, 1996). The UCR provides a ranking of crimes in terms of seriousness. The crime categories in descending order are as follows:

1. Murder and non-negligent manslaughter—The willful (non-negligent) killing of one human being by another.
2. Forcible rape—The carnal knowledge of a female forcibly and against her will.
3. Robbery—The taking or attempting to take anything of value from the care, custody, or control of a person or persons by force or threat of force or violence and/or by putting the victim in fear.
4. Aggravated assault—An unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury.

5. Burglary—The unlawful entry or attempted entry of a structure to commit a felony or theft.

6. Larceny-theft—The unlawful taking, carrying, leading, or riding away of property from the possession or constructive possession of another.

7. Motor vehicle theft—The theft or attempted theft of a motor vehicle.

8. Arson—Any willful or malicious burning or attempt to burn, with or without attempt to defraud, a dwelling house, public building, motor vehicle, or aircraft, personal property of another etc. (as cited in Bynum & Thompson, 1996, p. 55)

Due to their seriousness, frequency, and likelihood of being reported to the authorities, these eight crime categories were chosen as the basis for the UCR index, and are referred to as Index Offenses. The first four Index Offenses—murder, forcible rape, robbery, and aggravated assault—are usually grouped together and referred to as violent crimes. Violent crimes are those offenses directed against a person (Bynum & Thompson, 1996). These four crimes are deemed to be of high seriousness. Any adult police contact, which involves any one of these four crimes, is considered a high seriousness contact and is, coded 1 in the present study. Thus, crimes coded 1 involve crimes against persons. For the other 2,223 subjects in this study having permanent residence anything else is coded zero.

Independent Variables

The independent variables in this study are sanctions, nature of drug use (hard drugs vs. soft drugs), nature of participation in illegal drug activity (distributors vs. consumers), and juvenile non-drug contact.

Contacts

A contact occurs when police officers detect juveniles (a) in the act of committing what would be considered a crime had they been adult or (b) engaging in behavior that could be considered injurious to themselves or others and thus warranting intervention. An officer may also instigate a contact on his/her suspicion that something illegal has taken place, as part of an investigation or in an attempt to seek information from a juvenile or juveniles about activity that has previously taken place (Shannon, 1988 p. 27). All juveniles having a police contact are coded 1. All others are coded zero. In addition, any offense involving drug use is categorized as a drug offense. All those having a drug offense are coded 1; all others are coded zero.

Sanctions

A sanction is defined as "society's effort to ensure future conformity to the social norms and to punish past nonconformity to the norms " (Conklin, 1981, p. 1). In this study data on several types of penalties are available. All of the sanctions were coded 1. A code of 1 indicates that a sanction was imposed. A code of zero indicates that a sanction was not imposed. The following list indicates the sanctions available to the court at the time of disposition.

1. Custody transfer
2. Forfeit
3. Fine $0 -$30
4. Fine $31 -$60

5. Fine $61 -$100
6. Fine$101 -$350
7. Sentence suspended
8. Driver's license suspended/revoked: to 9 months or unspecified time
9. Driver's license suspended/revoked: 10 months or more
10. Probation: to 1 year or time unspecified
11. Probation: 1 year or more
12. Time: 1-29 days or time unspecified
13. Time: 30-89 days
14. Time: 90 days up to 1 year
15. Time: 1 year or more.

Hard Drugs

"The major drugs may be arranged in four types according to their effects on the central nervous system: depressants, stimulants, hallucinogens and cannabis" (Abadinsky, 1989, p. 6). All major drugs excluding cannabis and its derivatives, are hard drugs. Juveniles abuse substances such as heroin, cocaine, and methamphetamines. Juveniles who have ever used drugs in this category are coded one. If they have not used drugs in this category they are coded zero.

Soft Drugs

This category consists of cannabis and its derivatives, such as hashish and hash oil. All the soft drugs are coded 1 in this study. All other drugs are coded zero

Distributors of Drugs

Sellers consist of those who have police contact for at least one of the following reasons: (a) possession with intent to deliver, (b) selling, and (c) delivery. All of these types of police contacts will be coded as one.

Consumers of Drugs

Consumers consists of those who have police contact for at least one of the following: Sniffing, mention, possession, buying, suspected possession, use, overdose, and receiving. Police contact for any of these offenses is coded 1.

Control Variables

Neighborhood of socialization. In the Racine data set the natural area codes (range 1-26) represent a rank ordering of various areas of Racine in terms of their average census block characteristics. A rank of 1 represents an area with low socioeconomic status, and a rank of 26 represents an area with high socioeconomic status. This rank ordering is based mainly on factor scores that reflect each block's characteristics as described below. The block characteristics used to obtain the factor scores are (a) average dollar value of owner-occupied housing, (b) average contract rent, (c) percentage lacking all or some plumbing, (d) percentage units renter-occupied, and (e) percentage units overcrowded (Shannon, 1981, p. A-26).

"The rank ordering of neighborhoods in term of socioeconomic status provides an aggregate-level measure of the social, physical, and economic characteristics of the natural area(s) in which the cohort member lived during the ages 6 through 17. Codes 1 through 26 yield a rank ordering of individual areas with 1=highest and 26=lowest" (Shannon 1981, p. II-2). Thus, 1 represents the preferred areas of affluence and money,

whereas 26 represents the dilapidated, poverty-stricken areas. As described earlier, the codes for the individual natural areas (1-26) yield a rank ordering of individual socialization areas. Shannon (1981) has collapsed and integrated the data into a meaningful two-category classification of the natural areas. In the category neighborhoods with low SES the codes 1,2,3, through 8, 30, 31, and 35 were all be coded 1. These are areas identified as low SES by Shannon. Anything else was coded 0 (Shannon, 1981, p.B4).

Gender. This variable refers to the gender of each juvenile. All males are coded 1 and all females are coded 0.

Inner City. The inner city has long been associated with social disorganization by many social demographers (e.g. Shaw and Mackay1942; Park and Burgess 1925). Those respondents who are inner-city residents are coded one

Age affiliation. Juveniles often commit crimes in the company of other juveniles. The social context of committing juvenile crimes may be categorized into four groups: a.) the peers present at the time of committing the offense are juveniles, b) the peers are adults; c.) mixed group of peers, d.) no one present.

In this study whether or not a juvenile is committing crimes with persons his or her own age was examined. Youths involved in criminal conduct learn criminal techniques, along with justifications for their behavior from other juveniles like themselves. Those of the same age group were coded 1.

Sex Group Affiliation. When juveniles, especially males, are in same- sex peer group affiliations they often seek others males who are in a similar situation. These same- sex

juveniles offer sympathy for their condition and justification for their deviant acts. These groups often have a sense of brotherhood or sisterhood. Hence, these same- sex juveniles provide a strong sense of solidarity with a "we" versus "them" attitude.

Also, there are factors of desistance that one must consider when speaking about peer group affiliation. Socialization theories assert that when a young male is in a committed relationship with a person of the opposite sex (marriage or marriage-like), he is less likely to engage in deviant conduct (West & Farrington, 1977). Those of the same sex will be coded 1. All others were coded 0.

Analysis

For the study of juvenile drug abuse and criminal career continuity, following procedures were utilized:

Tabulation of the Raw Data

Frequencies distribution. Essentially, "a frequency distribution shows the number of cases having each of the attributes of a given variable"(Babbie, 1995, pg. 392).

Cross-tabulations and chi-square test of independence.— A cross-tabulation is a table, which presents the distribution-frequencies and percentages of the dependent variable across the categories of one or more of the independent variables (Levin & Fox, 1991). The chi-square test is used to test whether or not there is a statistical relationship between two variables. When the variables are dummy variables or ordinal variables, the appropriate measures of association such as phi-coefficient were used.

Multivariate Analysis

The next part of the analysis involved the use of logistic regression. "This technique is a special form of regression in which the criterion variable is nonmetric, specifically a dichotomous (binary) variable. While differences exist in some aspects, the general manner of interpretation is quite similar to linear regression" (Hair, Anderson, Tatham, & Black, 1992) In this section a number of equations are proposed for statistical estimation.

1. Those juveniles who have come into contact with the law are far more likely to participate in adult crimes of high seriousness than are those juveniles who have not come into contact with the law. The regression equation is:

$Y = \alpha + B1(\text{contact with the law}) + \text{controls} + ei$

The reference group for this equation is those juveniles having no contact with the law.

2. Those juveniles who had a drug contact are more likely to have adult crimes of high seriousness than are those who did not use drugs but had police contact for other unlawful behavior. The regression equation is:

$Y = \alpha + B1\ (\text{juvenile drug users}) + B2\ (\text{juvenile non-drug users}) + \text{controls} + ei$

The reference group for this equation is those juveniles having no contacts.

3. Those juveniles who received a sanction are less likely to commit a crime of high seriousness in adulthood than are those who received no sanction. The regression equation is:

$Y = \alpha + B1\ (\text{sanction}) + \text{controls} + ei$

The reference group for this equation is those juveniles who had no offense.

4. The next equation is for the subgroup of juveniles who had contact for some offense. Those juvenile drug users who were sanctioned for a drug offense are more likely to commit a crime of high seriousness as an adult than are those who were sanctioned for other crimes as juveniles.

$Y=\alpha+ B1$ (drug sanctions) $+B2$ (non-drug sanctions) controls $+ei$

The reference group for this equation is juveniles who had no offense.

5. The fifth equation deals with juvenile drug distributors versus consumers. Those cohort members who were distributors of hard drugs are more likely to have crimes of high seriousness in adulthood than are those who were simply consumers.

$Y= \alpha+ B1$ (distributors) + controls + ei

The reference group for this equation is consumers.

6. The sixth equation deals with hard drugs versus soft drugs. Those cohort members, who used marijuana, a soft drug, as juveniles are no more likely to commit crimes of high seriousness offenses in adulthood than are those members who used hard drugs.

$Y= \alpha+ B1$ (hard drug users) + controls + ei

The reference group for this equation is soft drug users.

Analyses and Results

Table 2 shows the frequency and percentage distribution by contacts for juveniles aged 6-17 (see appendix). This table includes all individuals from the original data set without exclusion for any reason. For the first offense the modal category was no offense. The frequency was 1,231, and the percentage was 46%. This shows that most of

the subjects did not have some type of contact with the authorities. The second most frequent offense is moving traffic offenses. The frequency was 383, and the percentage was 14.3. The third most frequent offense at the first contact was running away from one's parent or legal guardian. The frequency was 270 with 10.1%. The fourth most frequent offense was disorderly conduct. Within this category, there were 238 contacts at 8.9%.

For the second offense, the modal category was no offense. The frequency was 1,757, and the percentage was 65.7. These figures indicate that 526 juveniles who committed a first offense did not go on to commit a second offense. The second most frequent offense during the second contact was moving traffic offenses, with a frequency of 222 and a percentage of 8.3. The third most frequent crime during the second contact was disorderly conduct, with a frequency of 173 and a percentage of 6.5. The fourth most common crime during the second contact was running away from one's parent or legal guardian. The frequency was 164 with a percentage of 6.1.

For the third offense, the modal category was no offense with a frequency of 2,026 and a percentage of 75.7. These figures indicate that 269 juveniles who committed a second offense did not go on to commit a third offense. The second most frequent offense at the time of the third police contact was moving traffic offenses, with a frequency of 135 and a of percentage 5. The third most frequent offense was running away from one's parent or legal guardian. The fourth most frequent contact was disorderly conduct, with a frequency of 111 and a percentage of 4.1.

For the fourth police contact, the modal category was no offense. The frequency was 2,173, and the percentage 81.2. This indicates that 147 juveniles who committed a third offense did not go on to commit a fourth offense. The second most frequent offense at the time of the fourth contact was disorderly conduct. This category of crime had a frequency of 102 and a percentage of 3.8. The third most frequent type of crime was moving traffic offenses. This category had a frequency of 93 and a percentage 3.5.

At the time of the fifth police contact, the modal category was no offense with a frequency of 2,173 and a percentage of 81.2 percent. This indicates that 91 juveniles who committed a fourth offense did not go on to commit a fifth offense. The second most frequent offense at the time of the fifth police contact was disorderly conduct. This category crime had a frequency of 79 and a percentage of 3.9. The third most frequent contact was running away from one's parent or legal guardian. The frequency was 76, and the percentage was 2.8. The fourth most frequent contact was moving traffic offenses, with a frequency of 68 and a percentage of 2.5. At this point, it is clear that the categories of crime from the first contact to the fifth contact have remained the same. However, the positions are changing from petty crime to crimes of a disorderly nature.

At the time of the sixth, contact the modal category was no offense, with a frequency of 2,340 and a percentage of 87.4. This indicates that 76 juveniles who committed a fifth offense did not go on to commit a sixth offense. The second most frequent type of criminal activity was running away home. The frequency was 75 and the percentage 2.8. The third most frequent offense was disorderly conduct, with a frequency of 64 and a percentage of 2.4. The fourth type contact was for an offense titled contact. This is an

unspecified category, meaning that there was a contact with the police for a sixth offense but that it was unspecified. The frequency was 50 and the percentage was 1.9.

For the seventh police contact the modal category was no offense, with a frequency of 2,377 and a percentage of 88.8. This indicates that 37 juveniles who committed a sixth offense did not go on to commit a seventh offense. The second most frequent offense at the time of the seventh contact was disorderly conduct, with a frequency of 57 and a percentage of 2.1. The third most frequent offense was running away from a parent or legal guardian. The frequency was 55 and the percentage 2.1. The fourth most frequent crime was contact unspecified, with a frequency of 45 and percentage of 1.7.

For the eighth contact the modal category was no offense, with a frequency of 2,415 and a percentage of 90.2. The second most frequent type of criminal behavior was disorderly, conduct with a frequency of 48 and a percentage of 1.8. The third most frequent criminal activity among juveniles at the eighth was for contacts unspecified. The frequency was 47, and the percentage was 1.7. The fourth most frequent criminal activity was running away from one's parent or legal guardian. The frequency was 45 and the percentage 1.7.

At the time of the ninth offense, the modal category was no offense, with a frequency of 2,446, and a percentage of 91.4 percent. This indicates that 31 juveniles who committed an eighth offense did not go on to commit a ninth offense. The second most frequent offense at this time period was disorderly conduct, with a frequency of 44 and a percentage of 1.6. The third most frequent offense was running away from a parent or legal guardian. The frequency was 41 with a percentage of 1.5. The fourth most

frequent activity was for contacts unspecified. The frequency was 29 and the percentage was 1.1.

For the time period 10th contact through 83rd contact, the number of offenders dwindled considerably as the number of contacts increased. The most frequent form of criminal conduct in this time period was disorderly conduct, with a frequency of 620 and a percentage of .20. The second most frequent time of criminal conduct was running away from home, with a frequency of 417 and a percentage of .13. The third most frequent type of criminal conduct was contacts unspecified. The frequency was 374 and the percentage was .12. The fourth most frequent type of criminal conduct at this time period was for theft, with a frequency of 309 and a percentage of .10

Table 2 suggests that most of the juvenile offenses were for status offenses such as incorrigibility and running away from home. However, as the number of contacts increased, the types of crime shifted from status- type offenses to disorderly conduct and property theft. Also, it is clear that a small group of chronic offenders are committing numerous crimes.

Table 3 shows the frequency and percentage distribution of juvenile drug use. Individuals selected for inclusion in this analysis met one or both of two different definitions of continuous residence in Racine (see appendix). The total number of subjects in this analysis was 2,223. The modal category was no drug offense with a frequency of 2,112 and a percentage of 95.5. The drug offense category had a frequency of 101 and a percentage of 4.5. Thus, most juveniles aged 6-17 did not have a contact for drug usage.

Table 4 shows the frequency and percentage distribution of juvenile non-drug crime (see appendix). The modal category was nonoffender, with a frequency of 1,405 and a percentage of 63.2. The category titled juvenile non-drug crime had a frequency of 818 and a percentage of 36.8. Thus, in relative comparison, one can see that most juveniles who were involved in crime committed non-drug offenses.

Table 5 shows the frequency and percentage distribution of type of adult contacts first through fifth offense (see appendix). At the time of the first adult offense, there were 348 crimes committed. The most frequent type of crime was moving traffic offenses, with a frequency of 200 and a percentage of 57.5. The second most frequent activity was disorderly conduct, with a frequency of 66 and a percentage of 19.0. The third most frequent activity was for suspicious contact, with a frequency of 43 and percentage of 12.4. There was a statistical tie for the fourth most frequent contact between liquor violations and drug violations. The frequency was 8 and the percentage was 2.3.

At the time of the second police contact, there were 298 offenses committed. The most frequent type of crime at the second adult contact was moving traffic offenses, with a frequency of 145 and a percentage of 48.7. The second most frequent offense is disorderly conduct, with a frequency of 69 and a percentage of 23.2. The third most frequent offense was suspicious contact. The frequency was 37, and the percentage 12.4. The fourth most frequent type of criminal activity at this time period was for theft, with a frequency of 11 and the percentage of 3.7.

At the time of the fourth contact the most frequent criminal activity was moving traffic offenses, with a frequency of 92 and a percentage of 41.1. The second most frequent event was disorderly conduct, with a frequency of 57 and a percentage of 25.4. The third most frequent contact was for suspicious contact. The frequency was 36 and the percentage was 16.1. The fourth most frequent contact was for theft. The frequency was 11 and the percentage was 4.9.

For the fourth adult contact, the most frequent offense was moving traffic offenses with a frequency of 70 and a percentage of 37.0. The second most frequent type of criminal conduct for this time period was disorderly conduct, with a frequency of 49 and a percentage of 26.6. The third most frequent type of criminal conduct at the fourth contact was for suspicious contacts. The frequency was 16 and the percentage is 8.7. The fourth most frequent type of crime was theft. The frequency was 12 and the percentage, was 6.5.

The most frequent type of crime at the fifth contact was moving traffic offenses, with a frequency of 49 and a percentage of 32.9. The second most frequent activity was disorderly conduct, with a frequency of 34 and a percentage of 22.8. The third most frequent activity was suspicious contact with a frequency of 23 and a percentage of 15.4. The fourth most frequent act is drug violations, with a frequency of 12 and a percentage of 8.1

Table 6 shows the frequency and percentage distribution of adult drug use (see appendix). Individuals selected for inclusion in this analysis met one or both of two different definitions of continuous residence in Racine. The modal category is non-drug

offender, with a frequency of 2,103 and a percentage of 94.6. The number of adult drug offenders was 120 with a percentage of 5.4

Table 7 shows the frequency and percentage distribution of adult non-drug crime (see appendix). The modal category was nonoffender, with a frequency of 1,545 and a percentage of 69.5. The number of adult non-drug offenders was 678, with a percentage of 30.5

Table 8 shows the frequency and percentage distribution of adult crimes of high seriousness (see appendix). The modal category was no contact, with a frequency of 1,790 and a percentage of 80.5. The second most frequent category was for crimes of low seriousness, with a frequency of 333 and a percentage of 15. The third most frequent category was for crimes of high seriousness, with a frequency of 100 and a percentage of 4.5.

Table 9 shows the frequency and percentage distribution of juvenile contacts ages 6-17 (see appendix). The modal category was no contacts with a frequency of 1,579 and a percentage of 59. The range was from zero to 65. The number of juveniles having at least one police contact was 476.

Table 10 shows the frequency and percentage distribution of adult contacts ages 18-33 (see appendix). The modal category was no contacts, with a frequency of 1,733 and a percentage of 64.8. The range was zero to 40. The number of adults having at least one police contact was 453.

Table 11 shows the frequency and percentage distribution of juvenile offenders (see appendix). Individuals selected for inclusion in this analysis met one or both of two

different definitions of continuous residence in Racine. For the offender category, there were 919 offenders, with a percentage of 41.3. The number of non- offenders totaled 1,304, with a percentage of 58.7.

Table 12 shows the frequency and percentage distribution of adult nonoffenders (see appendix). For the offense category, there were 798 offenders, with a percentage of 35.9. In the nonoffender category, there were 1,425 juveniles, with a percentage of 64.1.

Table 13 shows the frequency and percentage distribution of the juvenile's area of socialization (see appendix). This table utilizes an ordinal level of measurement to describe the social and economic conditions of the juvenile's home area. One represents the areas of lowest SES, and 26 represents areas with the highest SES. The categories 27-98 are for juveniles who lived in more than one area during their childhood. The categories 61-98 represent areas outside of Racine. The modal frequency for areas within Racine is the category 20, with a frequency of 156 and a percentage of 5.8. The second most frequent area of socialization within Racine was the category 17, with a frequency of 136 and a percentage of 5.1.

Table 14 shows the frequency and percentage distribution of inner city residence (see appendix). The category not continuous residence had a frequency of 86 and a percentage of 3.9. The category showing inner city residence had a frequency of 430 and a percentage of 19.3. Those juveniles who had non inner- city residence totaled 1,339, with a percentage of 60.2. This leaves 368 or 16.6% of the cases not ascertained.

Table 15 shows why the individual in question had drugs (see appendix). The modal category is nonoffenders, with a frequency of 2,177 and a percentage of 97.9 The second

most frequent reason for having drugs was possession, with a frequency of 25 and a percentage of 1.10. The third most frequent reason for having drugs was possession with intent to deliver. The frequency was 6 and the percentage .30. The fourth most frequent reason for having drugs was delivery with a frequency of 5 and a percentage of .20.

Table 16 shows the frequency and percentage distribution for juvenile drug users versus consumers (see appendix). The modal category is nonoffender with a frequency of 2,122 and a percentage of 95.5. The second most frequent category was consumers, with a frequency of 66 and a percentage of 3. The third most frequent category was distributors, with a frequency of 20 and a percentage of .9.

Table 17 shows the frequency and percentage distribution of hard drug usage versus soft drug usage (see appendix). The modal category is nonoffender, with a frequency of 2,122 and a percentage of 95.5. The second most frequent category was hard drug users with a frequency of 40 and a percentage of 1.8. The remaining 16 contacts were either missing or unspecified.

Table 18 shows the frequency and percentage distribution of the type of drug involved in each police contact (see appendix). The modal category for this table was no contact with a frequency of 2,177 and a percentage of 97.9. The second most frequent category was marijuana usage, with a frequency of 18 and a percentage of .8. The third most frequent category was THC, with a frequency of 7 and a percentage of .3.

Table 19 shows the frequency and percentage distribution of juveniles sanctioned for drugs (see appendix). The modal category is non- offender, with a frequency of 2,122 and a percentage of 95.5. Those sanctioned for drugs had a frequency of 80 and a

percentage of 3.6,while those committing a drug offense and not being sanctioned had a frequency of 7 and a percentage of .3. In addition, there were 14 missing cases. Missing cases in this study consists of individuals for whom no data was available. This consists of persons who could not be found anywhere in the U.S. Researchers were unable to locate these individuals due to high mobility and no public records of their whereabouts.

Table 20 shows the frequency and percentage distribution of juvenile's sanctioned for crimes other than drugs (see appendix). The modal category was nonoffender, with a frequency of 1,406 and a percentage of 68.6. Those sanctioned for a crime other than drugs had a frequency of 393 and a percentage of 16.9. The non- sanctioned category was represented by a frequency of 307 and a percentage of 14.5. In addition, there were 117 missing cases.

Table 21 shows the frequency and percentage distribution of age composition of group for the first through fifth contact (see appendix). This table represents the age composition of the peers with whom the juvenile was apprehended. The modal category for the first contact was non- offender, with a frequency of 1,937 and a percentage of 72.4. The second category, juvenile offenders only, had a frequency of 507 and a percentage of 18.9. The third category is one or more juveniles with one or more adults. This frequency was 105, with a percentage of 3.9. The fourth category, entitled adult offenders, had a frequency of 58 and a percentage of 2.2. In addition, there were 66 juveniles who had committed an infraction, but for whom information about their peers was not available.

At the time of the second contact, the modal category was non- offender, with a frequency of 2,157 and a percentage of 80.6. In the second category, juvenile offenders only, the frequency was 306 and the percentage was 11.4. In the third category, one or more juveniles with one or more adults, the frequency was 77 and the percentage, 2.9. The fourth category, adult offenders, had a frequency of 66 and a percentage of 2.5. Also, there were 70 juvenile offenders for which no peer information was available.

At the time of the third contact the modal frequency was non- offender, with a frequency of 2297 and a percentage of 85.8. In the juvenile offenders only category the frequency was 211 and the percentage, 7.9. The category was one or more juveniles with one or more adults. This category had a frequency of 66 and a percentage of 2.5. The next category, adult offenders, had a frequency of 41 and a percentage of 1.5. Lastly, there were 61 offenders for whom no peer information was available.

For the fourth contact the modal category was non- offender. The frequency was 2,387, and the percentage was 89.2. In the first category, juvenile offender, the frequency was 149 and the percentage, 5.6. The third category, one or more juveniles with one or more adults, had a frequency of 41 and a percentage of 1.5. The fourth category, adult offenders, had a frequency of 47 and percentage of 1.8. In addition, there were 52 offenders for which no peer information existed.

At the time of the fifth contact, the modal category was non- offender, with a frequency of 2,449 and a percentage of 91.5. For the second category, juvenile offenders only, the frequency was 118, and the percentage, 4.4. The third category, one or more juveniles with one or more adults, had a frequency of 36 and a percentage of 1.3. For the

fourth category, adult offenders, the frequency was 38 and the percentage was 1.4. Also, there were 35 offenders for which there was no peer information existed.

From the above analysis of age composition of peer group, it is clear that the majority of juveniles committed crimes with other adolescents as opposed to committing crimes with persons 18 or over. These youths appear to be congregating with adolescents like themselves, as opposed to older individuals who could impede such behavior.

Table 22 shows the frequency and percentage distribution of sex composition of group for the first through fifth contact (see appendix). This table represents the sex composition of the peers with whom the juvenile was apprehended. For the first contact the modal category was no offense with a frequency of 1937 and a percentage of 72.4. The second category consisted of males only. The frequency was 408, and the percentage was 15.2. The third category consisted of females only. The frequency was 99 and the percentage was 3.7. In the mixed peer group, the frequency was 185, and the percentage was 6.9. In addition there were 47 cases with missing data.

For the second contact the modal category was no offense, with a frequency of 2,158 and a percentage of 80.6. In the second category, males only, the frequency was 289 and the percentage 10.8. The third category, females only, had a frequency of 55 and a percentage of 2.1. In the mixed peer group, the frequency was 130 and the percentage, 4.9. Also, there were 44 juveniles with missing data.

For the third contact the modal category was no offense, with a frequency of 2,298 and a percentage of 85.9. In the males- only category, the frequency was 211 and the percentage was 7.9. The third category consisted of females only and had a frequency of

22 and a percentage of .8. In the next category, mixed peer group, the frequency was 107 and the percentage was .4. In addition, for 38 cases, data were missing data.

For the fourth contact the modal category was no offense, with a frequency of 2,387 and of percentage 89.2. In the next category, males only, the frequency was 170 and the percentage 6.4. In the third category, females only, the frequency was 25 and the percentage was .9. In the next group, mixed peer group, the frequency was 63, and the percentage was 2.4. In addition, for 31 cases, data were missing.

For the fifth contact, the modal category was no offense, with a frequency of 2,449 and a percentage of 91.5. The males- only category had a frequency of 143 and a percentage of 5.3 and the females- only category had a frequency of 14 and a percentage of .5. In the mixed peer group the frequency was 53 and the percentage was .2.

From the above information, it is clear that male juveniles in collaboration with other male juveniles commit most criminal activity among juveniles. This implies that these juveniles learned their criminal techniques, along with the justifications for their behavior from other juveniles.

Cross-tabulations and Measures of Association

Measures of association can be used to test whether or not there is a statistical relationship between two variables. Each juvenile in the sample was classified on two separate variables. In each case, the independent variable was matched against the dependent variable, adult crimes of high seriousness.

In the first cross-tabulation, the independent variable was juvenile offender and consisted of all persons aged 6-17 who had contact with the law. The cross-tabulation for

this set of variables indicates that, for subjects having a contact as a juvenile, 89.5% did not go on to commit an adult crime of high seriousness, whereas 10.5% did. For those juveniles aged 6-17 not having any police contact, 99.6% of them did not go on commit an adult crime of high seriousness, whereas 0 .4% did. The Pearson chi-square value was 129.005 with one degree of freedom. It was significant at the .05 level. The phi coefficient was -. 241 and was significant at the .05 level (see Table 23 in the appendix). These results suggest that those juveniles having contact with the law are more likely than those juveniles not having contact with the law to commit crimes of high seriousness in adulthood

In the next cross-tabulation the independent variable was status of juvenile offense. The cross-tabulation for this variable indicates that for those juveniles having a police contact for drug abuse 80.2% of them did not go on to commit an adult crime of high seriousness, whereas 19.8% did. For those juveniles who were non- drug offenders, 90.7% did not go on to commit an adult crime of high seriousness whereas 9.3% did. Also, 99.7% of the non- offenders did not go on to commit an adult crime of high, seriousness and .3% did. The Pearson chi-square value was 152.124. It was significant at the .05 level. The phi coefficient was .262 and was significant at the .05 level (see Table 24 in the appendix). These results suggest that those juveniles having a contact for drug usage are far more likely to commit a crime of high seriousness in adulthood than are those juveniles having a police contact for non drug contacts

The next cross-tabulation involves the independent variable type of juvenile sanction. The cross-tabulation for this variable indicates that, for those juveniles

receiving a sanction from the court, 84.4% of them did not go on to commit a crime of high seriousness as an adult, whereas 15.6% did. Of those offenders who were not sanctioned by the court, 97.1% of them did not go on to commit an adult crime of high seriousness, and 2.9% did. For the non- offenders, 98.8% of them did not commit a crime of high seriousness as an adult, and 1.2% did. The Pearson chi-square value was 175.462. It was significant at the .05 level. The phi coefficient was .281, and it was significant at the .05 level (see Table 25 in the appendix). These results suggest that those juveniles receiving a sanction for a juvenile contact are more likely than those juveniles having a police contact but with no sanction to commit a crime of high seriousness in adulthood.

The next cross-tabulation involves type of juvenile sanction. In this cross-tabulation only those juveniles receiving a sanction for a crime were included. The data indicate that for those juveniles receiving a drug sanction, 76.3% of them did not go on to commit a crime of high seriousness in adulthood, while 23.8% did. For those juveniles receiving a non-drug sanction 86% of them did not go on to commit a crime of high seriousness, and 14% did not. The chi square value was 4.79. It was significant at the .05 level. The phi coefficient was -. 101, and it was significant at the .05 significance level (see Table 26 in the appendix). This suggests that those juveniles sanctioned for a drug crime are more likely to commit a crime of high seriousness in adulthood than those sanctioned for a non-drug crime. Furthermore, it demonstrates that deterrence does not have a linear effect across all types of criminal conduct.

The next two cross-tabulations involve the selection of juvenile drug offenders only. The first independent variable to be utilized was juvenile drug distributors. For those juveniles having a contact for drug distribution 65% did not go on to commit a crime of high seriousness in adulthood, whereas 35% did. For those juveniles not having a police contact for drug distribution, 83.1% did not go on to commit an adult crime of high seriousness, whereas 16.9% did. The Pearson chi-square value was 3.18. It was not significant at the .05 level. The phi coefficient was -.181 and it was not significant at the .05 level. These results suggest that juvenile drug distributors are more likely to commit crimes of high seriousness in adulthood than are consumers (see Table 27 in the appendix).

The next cross-tabulation involves the independent variable hard drug usage. For those juveniles having a contact for hard drug usage, 78.9% did not go on to commit a crime of high seriousness in adulthood, whereas 21.1% did. For those juveniles not having a contact for hard drug, usage, 83% of them did not go on to commit a crime of high seriousness, whereas 17% did. The Pearson chi square value was .223. It was significant at the .05 level. The phi coefficient was .051 and it was significant at the .05 level. These results suggest that those juveniles having a contact for hard drug usage are more likely to commit a crime of high seriousness in adulthood than those having a police contact for soft drug usage (See Table 28 in the appendix).

The results from the cross-tabulations lend support to the research hypotheses. The direction and magnitude of the empirical findings support the assertion that juveniles who are delinquent and drug users are more likely to commit crimes of high seriousness in

adulthood. Furthermore, the results from the cross-tabulations support the two sub hypotheses that juvenile drug distributors, as opposed to consumers, and hard drug users, as opposed to those using only cannabis, are more likely to commit crimes of high seriousness in adulthood.

Logistic Regression

In the next phase of the analysis, the proposed hypotheses were tested using multivariate categorical techniques. This involved the use of logistic regression. According to Hair et al. (1992) "this technique is a special form of regression in which the criterion variable is nonmetric, specifically a dichotomous (binary) variable. While differences exist in some aspects, the general manner of interpretation is quite similar to linear regression" (p.22).

In examining the net effects of the proposed determinants of adult crime, a standardized analysis strategy is proposed. First, the gross effect (without controls) of the determinants (sanctions, drugs) on adult crimes of high seriousness was assessed. Second, the effects of the same determinants on crimes of high seriousness in adulthood were examined in the presence of two additional control variables, gender and low SES. Finally, the effect of the same determinants on serious adult crime was examined by adding three more control variables, gender composition of the peer group, age composition of the peer group, and inner- city residence.

The first hypothesis states that those juveniles who have come into contact with the law are far more likely to participate in serious adult criminal activity than those juveniles who have not come into contact with the law. The independent variable is juvenile

offender, and the dependent variable is adult crimes of high seriousness (See table 29 in the appendix). The reference group was the category of juveniles with no contacts. In the first model, the exponential beta coefficient was 37.88 with a standard error of .5121. It was significant at the .05 level. The –2 log likelihood was 669.602. This suggests that those juveniles having a police contact are approximately 37 times more likely to commit a crime of high seriousness as an adult than those juveniles who did not have a contact.

In model II, the control variables gender and low SES are added to the analysis. When the control variables were added to the equation, the exponential beta coefficient for juvenile offender became 36.32, with a standard error of .5132. It was significant at the .05 level. This suggests that those juveniles having a police contact are 36.32 times more likely to commit an adult crime of high seriousness than those juveniles who did not have a contact. The exponential beta coefficient for gender was .5313, and the standard error was .2190. The Wald statistic was 8.34, with 1 degree of freedom. It was significant at the .05 level. The -2 log likelihood value for model II was 656.206

In model III, the control variables sex composition of the peer group, age composition of the peer group, and inner-city residence were added to the analysis. When these control variables were added to the equation, the exponential beta coefficient for juvenile offender became 61.08, with a standard error of .6768. It was significant at the .05 level. This suggests that those juveniles having a police contact are approximately 61 times more likely to commit a crime of high seriousness in adulthood than those juveniles that did not. The exponential beta coefficient for gender became.6424, with a standard error of .3686. The Wald statistic was 1.44, with one degree of freedom. It was not significant

at the .05 level. The exponential beta coefficient for low SES became 1.59, with a standard error of .8054. The Wald statistic was .3334 with one degree of freedom. It was not significant at the .05 level. The exponential beta coefficient for gender composition of the peer group was .8528, with a standard error of .4192. The Wald statistic was .1443, with one degree of freedom. It was not significant at the .05 level. The exponential beta coefficient for age composition of the peer group was .5098, with a standard error of .4190. The Wald statistic was 2.58, with one degree of freedom and it was not significant at the .05 level. The exponential beta coefficient for inner city residence was .8512, with a standard error of .4524. The Wald statistic was .1269, with one degree of freedom. It was not significant at the .05 level. The -2 log likelihood value for model III was 241.041.

Thus, the results support the hypothesis that juveniles having contact with the police are more likely than those who do not have contact with the police to commit crimes of high seriousness in adulthood. In addition, none of the of the control variables was significant at the .05 level.

The second hypothesis states that those juveniles who had a drug contact are more likely to have serious adult criminal activity than those that did not use drugs but had police contact for other unlawful behavior. The independent variables were two categorical variables juvenile drug offenders and juveniles having contact for nondrug offenses. The reference group was the category of juveniles with no contacts (See Table 30 in the appendix). In the first model, the exponential beta coefficient for juveniles having police contact for a drug related crime was 80.18, with a standard error of .5594.

The Wald statistic was 61.42, with one degree of freedom. It was significant at the .05 level. For juveniles having contact for nondrug crimes, the exponential beta coefficient was 33.26 with a standard error of .5149. The Wald statistic was 46.32, with one degree of freedom. It was significant at the .05 level. This suggests that juvenile drug users are more likely than juvenile nonoffenders to commit crimes of high seriousness in adulthood. Furthermore, those juveniles having a police contact for nondrug offenses are more likely to have a police contact for crimes of high seriousness in adulthood than those having no contact. Overall, those juveniles having a police contact for drug offenses are far more likely to commit crimes of high seriousness in adulthood than those having police contact for nondrug offenses. The –2log likelihood was 660.688.

In model II, the control variables gender and low SES were added to the analysis. When the control variables were added to the equation, the exponential beta coefficient for juvenile drug user was 76.21 with a standard error of .5614. The Wald statistic was 8.09, with one degree of freedom. It was significant at the .05 level. The exponential beta coefficient for juvenile nondrug crimes was 31.90, with a standard error of .5160. The Wald statistic was 45.03, with one degree of freedom. It was significant at the .05 level. For the control variable, gender, the exponential beta coefficient was .5347 with a standard error of .2200. The Wald statistic was 8.09, with one degree of freedom. It was significant at the .05 significance level. For the control variable, low SES, the exponential beta coefficient was 2.27 with a standard error of .4002. The Wald statistic was 4.22 with one degree of freedom. It was significant at the .05 significance level. The –2 log likelihood is 647.614.

In model III the remainder of the control variables were added. For those juveniles having a drug contact the exponential beta coefficient was 13.08, with a standard error of .7490. The Wald statistic was 43.41, with one degree of freedom. It was significant at the .05 level. For those juveniles having a nondrug contact the exponential beta coefficient was 45.43, with a standard error of .6969. The Wald statistic was 29.98, with one degree of freedom. It was significant at the .05 level. The exponential beta coefficient for gender became .6369, with a standard error of .3719. The Wald statistic was 1.47, with one degree of freedom. It was not significant at the .05 level. The exponential beta coefficient for low SES was 1.89, with a standard error of .8107. The Wald statistic was .6225 with one degree of freedom. It was not significant at the .05 level. The exponential beta coefficient for sex of the peer group was .8805, with a standard error of .4283. The Wald statistic was .0891 with one degree of freedom. It was not significant at the .05 level. For age composition, the exponential beta coefficient was .5778, with a standard error of .4283. It is not significant at the .05 level. The exponential beta coefficient for inner city residence is .9162 with a standard error of .4557. The Wald statistic is .6225 with one degree of freedom. It was not significant at the .05 level. The –2 log likelihood was 236.055.

Overall, the data suggest that those juveniles having a police contact for drug usage are far more likely to commit a crime of high seriousness in adulthood than those who had a nondrug offense. This is largely due to the fact that drug abuse is a problem that is biopsychosocial in nature. This situation perpetuates drug abuse and the consequential crimes associated with it.

The third hypothesis states that those juveniles who received a sanction are less likely to commit a crime of high seriousness in adulthood than are those who received no sanction. The reference category was juveniles having no offense. The independent variable was juvenile sanctions. This category was composed of all those who were sanctioned for some crime in the juvenile period (see Table 31 in the appendix) In Model I, the exponential beta coefficient was 12.29, with a standard error of .2347. The Wald statistic was 114.36, with one degree of freedom. It was significant at the .05 level. The – 2 log likelihood was 680.805. This suggests that those juveniles receiving a sanction are approximately 12 times more likely to commit a crime of high seriousness in adulthood than those juveniles who did not receive a sanction. Thus, the results do not support the hypothesis that those juveniles receiving a sanction are less likely to commit a crime of high seriousness in adulthood than those who received no sanction. The reference category consists of nonsanctioned offenders and nonoffenders. The number of nonsanctioned offenders was very small. A side analysis was performed to determine whether or not there was a significant difference between those offenders who were not sanctioned and nonoffenders. The two groups that are compared are (a) nonsanctioned offenders and (b) non-offenders. The N for non-offenders is 1304 and the N for non-sanctioned offenders is 446. The analysis shows no significant difference between these groups in terms of serious crimes committed in adulthood.

In model II, the first two control variables were added to the equation. For the independent variable, juvenile sanctions, the exponential beta coefficient was 12.22, with a standard error of .2365. The Wald statistic was 112.05, with one degree of freedom. It

was significant at the .05 level. For the control variable gender, the exponential beta coefficient is .5137 with a standard error of .2224. The Wald statistic was 8.97 with one degree of freedom. It was significant at the .05 level. For the variable low S.E.S. the exponential beta coefficient was 3.78, with a standard error of .4383. The Wald statistic was 9.20, with one degree of freedom. It was significant at the .05 level. The –2 log likelihood was 661.787.

In model III the remaining control variables were added to the analysis. When the control variables were added, the exponential beta coefficient for the independent variable, juvenile sanctions, became 10.55, with a standard error of .4738. The Wald statistic was 24.73, with one degree of freedom. It was significant at the .05 level. For the control variable gender the exponential beta coefficient was .5948, with a standard error of .3696. The Wald statistic was 1.97 with one degree of freedom. It was not significant at the .05 level. For the variable low SES the exponential beta coefficient was 1.90, with a standard error of .8392. The Wald statistic was .5852, with one degree of freedom. It was not significant at the .05 level. For the variable sex composition of the peer group, the exponential beta coefficient was 1.86 with a standard error of .5181. The Wald statistic was 1.44 with one degree of freedom. It is not significant at the .05 level. The next variable involves the age composition of the peer group. The exponential beta coefficient was 1.04, with a standard error of .5072. The Wald statistic was .0073, with one degree of freedom. It was not significant at the .05 level. For the next variable, inner- city residence, the exponential beta coefficient was 1.09, with a standard error of .4500. The Wald statistic was .0405, with one degree of freedom. It was not significant

at .05. The –2 log likelihood was 259.436. Even after adding the controls there was no significant change in the findings. The primary finding is that those juveniles who are sanctioned for a crime are less likely to commit a crime of high seriousness in adulthood.

The fourth hypothesis states that those juveniles who were sanctioned for a drug offense are more likely to commit a crime of high seriousness as an adult than those who were sanctioned for other crimes as juveniles. The independent variables juveniles sanctioned for drugs and juveniles sanctioned for nondrug crimes were added to the analysis (see Table 32 in the appendix). For juveniles sanctioned for drug crimes, the exponential beta coefficient was 38.44, with a standard error of .3828. The Wald statistic was 90.89, with one degree of freedom. It was significant at the .05 level. The exponential beta coefficient for juveniles sanctioned for nondrug crimes was 20.08 with a standard error of .3140. The Wald statistic was 91.25 with one degree of freedom. These numbers suggest that those juveniles receiving a sanction for a drug crime are much more likely to commit a crime of high seriousness in adulthood than are those juveniles who received a nondrug sanction. This suggests that sanctions do not have a linear effect across types of criminal conduct. The –2 log likelihood was 557.273 (see Table 31 in the appendix).

In model II, the exponential beta coefficient for juveniles sanctioned for a drug crime became 36.90, with a standard error of .3859. The Wald statistic was 87.42, with one degree of freedom. It was significant at the .05 level. For the independent variable, juveniles sanctioned for nondrug crimes, the exponential beta coefficient was 19.69, with a standard error of .3167. The Wald statistic was 88.59, with one degree of freedom. It

was significant at the .05 level. For the control variable gender, the exponential beta coefficient was .5119 with a standard error of .2417. The Wald statistic was 7.67 with one degree of freedom. It was significant at the .05 level. For the control variable low SES, the exponential beta coefficient was 3.27 with a standard error of .5043. It was significant at the .05 level. The –2 log likelihood was 542.875.

In model III the exponential beta coefficient for juveniles sanctioned for drugs was 45.26, with a standard error of .6860. The Wald statistic was 30.88, with one degree of freedom. It was significant at the .05 level. The –2 log likelihood was 199.799. The beta coefficient for the other independent variable, juveniles sanctioned for nondrug crimes was 18.88. The Wald statistic was 22.18, with one degree of freedom. It was significant at the .05 level. This suggests that juveniles sanctioned for drugs are far more likely to commit a crime of high seriousness in adulthood than are those juveniles sanctioned for nondrug crimes. The exponential beta coefficient for the control variable gender was .5302, with a standard error of .4189. The Wald statistic was 2.29, with one degree of freedom. It was significant at he .05 level. The exponential beta coefficient for low SES was .9431 with a standard error of 1.13. The Wald statistic was .0027, with one degree of freedom. It was significant at the .05 level. The exponential beta coefficient for sex composition of the juveniles peer group was 1.10, with a standard error of .5432. The Wald statistic was 2.29 with one degree of freedom. It was significant at the .05 level. The exponential beta coefficient for the age composition of the juveniles peer group was 1.21, with a standard error of .5434. The Wald statistic was 12.55 with one degree of freedom. It was significant at the .05 level. The last control variable, inner-

city residence had an exponential beta coefficient of .7336 with a standard error of .5744. The Wald statistic was .2910, with one degree of freedom. It was significant at the .05 level. The –2 log likelihood was 199.79. Even after adding the controls there is no significant change in the findings. The primary finding is that those juveniles who were sanctioned for a drug offense are more likely to commit a crime of high seriousness as an adult than those who were sanctioned for other crimes as juveniles.

The fifth hypothesis states that those cohort members who were distributors of hard drugs are more likely to commit serious offenses in adulthood than those who were simply consumers. In this analysis was a subpopulation of 101 juveniles with a police contact for a drug crime. The independent variable was juvenile drug distributor (see Table 33 in the appendix). The exponential beta coefficient for juvenile drug distributors was 2.65, with a standard error of .5589. The Wald statistic was 3.04, with one degree of freedom. It was not significant at the .05 level. Thus, the results do not support the hypothesis that juvenile drug distributors are more likely to commit a crime of high seriousness in adulthood. The –2 log likelihood is 95.81 (see Table 32 in the appendix).

In model II, the exponential beta coefficient for drug distributors changed to 2.13, with a standard error of .5790. The Wald statistic was 1.71 with one degree of freedom. It was not significant at the .05 level. The –2 log likelihood was 90.83. The exponential beta coefficient for gender was .3332, with a standard error of .5806. The Wald statistic was 3.58, and it was not significant at the .05 level. The exponential beta coefficient for

low SES was 2.85, with a standard error of .9715. The Wald statistic was 1.16, with one degree of freedom. It was not significant at the .05 level.

In model III the rest of the control variables were added to the analysis. The exponential beta coefficient for the independent variable, juvenile drug distributor, was 4.43, with a standard error of 1.11 The Wald statistic was 1.79 with one degree of freedom. It was not significant at the .05 level. The –2 log likelihood was 33.83. These numbers suggest that juvenile drug distributors are more likely than consumers only to engage in adult crimes of high seriousness. However, this relationship was not significant. For the control variable gender, the exponential beta coefficient was 1.61, with a standard error of .9788. The Wald statistic was .2407 with one degree of freedom. It iwas not significant at the .05 level. For the control variable low SES, the variable was constant for all of the selected cases. Since a constant was requested in the model, it was removed from the analysis. For the variable sex composition of the peer group, the exponential beta coefficient was .8528, with a standard error of .4192. The Wald statistic was .0082, with one degree of freedom. It was not significant at the .05 level. The next variable was age composition of the peer group. The exponential beta coefficient was .3940 with a standard error of .9123. The Wald statistic was 1.04 with one degree of freedom. It was not significant at the .05 level. For the last variable, inner- city residence, the exponential beta coefficient was 67.38 with a standard error of 1.27. The Wald statistic was .0952 with one degree of freedom. It was not significant at the .05 level. Even after adding the controls there was no significant change in the findings. The

primary finding is that there is no difference between drug distributors and consumers in the likelihood of committing a crime of high seriousness in adulthood.

The sixth hypothesis states that those cohort members who, as juveniles, used marijuana, a soft drug, are more likely to commit serious offenses in adulthood than those members who used hard drugs. In this analysis was a sub-population of 101 juveniles with a police contact for a drug crime. The independent variable was juvenile hard drug usage. (see Table 34 in the appendix) The exponential beta coefficient for juvenile hard drug user was 1.29, with a standard error of .5558. The Wald statistic was .2226, with one degree of freedom. It was not significant at the .05 level. The –2 log likelihood was 81.99. These results suggest that there is no support for this hypothesis.

In model II, the variable juvenile hard drug usage had an exponential beta coefficient of 1.26, with a standard error of .5863. The Wald statistic was .1566, with one degree of freedom. It was not significant at the .05 level. The –2 log likelihood was 76.05. The variable gender had an exponential beta coefficient of .3138, with one degree of freedom. The Wald statistic was 3.32 with one degree of freedom. It was not significant at the .05 level. For the variable low SES, the exponential beta coefficient was 4.19 with a standard error of 1.09. The Wald statistic was 1.73, with one degree of freedom. It was not significant at the .05 level.

In model III the rest of the control variables were added. The variable juvenile hard drug usage had an exponential beta coefficient of 1.52, with a standard error of 1.01. The Wald statistic was .1693 with one degree of freedom. It was not significant at the .05 level. The –2 log likelihood was 29.58. The exponential beta coefficient for gender was

.8907, with a standard error of .9463. The Wald statistic was .0150 with one degree of freedom. It was not significant at the .05 level. The variable low SES was constant for all selected cases. This variable was removed from the analysis. The variable sex composition of the peer group had an exponential beta coefficient of .9930, with a standard error of 1.08. The Wald statistic was .0000, with one degree of freedom. It was not significant at the .05 level. The variable age composition of the peer group had an exponential beta coefficient of .4852, with a standard error of .9735. It was not significant at the .05 level. The last variable was inner- city residence. It had an exponential beta coefficient of .0003 with a standard error of 44.33. The Wald statistic was .0339 with one degree of freedom. It was not significant at the .05 level.

Table 35

Hypotheses and Findings

Hypotheses	Findings
1. Those juveniles who have come into contact with the law are far more likely to commit crimes of high seriousness as adults than those who have not come into contact with the law	The results support the hypothesis that juveniles having contact with the police are more likely than those who do not have contact with the police to commit adult crimes of high seriousness
2. Those juveniles who had a drug contact are more likely to have adult crimes of high seriousness than those who did not use drugs but had police contact for other crimes.	The empirical findings support this hypothesis. Those juveniles having a police contact for drug offenses are far more likely to commit adult crimes of high seriousness than those having police contacts for non-drug offenses.
3. Those juveniles who have been sanctioned for a crime are less likely to commit crimes of high seriousness in adulthood.	The results do not support the hypothesis that those juveniles receiving a sanction are less likely to commit a crime of high seriousness in adulthood than those who received no sanction.
4. Those juvenile drug users who were sanctioned for a drug offense are more likely to have adult crimes of high seriousness than those who were sanctioned for other crimes.	The empirical findings support the hypothesis that those juveniles receiving a sanction for a drug crime are more likely to commit an adult crime of high seriousness than are those juveniles who received a non- drug sanction.
5. Those cohort members who were distributors of hard drugs are more likely to commit adult crimes of high seriousness than those who were consumers.	The results do not support the hypothesis that juvenile drug distributors are more likely to commit a crime of high seriousness in adulthood
6. Those cohort members who used a hard drug as juveniles are more likely to commit adult crimes of high seriousness than those members who used soft drugs.	The results suggest that there is no support for the hypothesis that juveniles who used hard drugs are more likely to commit adult crimes of high seriousness than those who used soft drugs

Conclusion and Discussion

A persistent question among policy makers and lawmakers alike is centered on a plausible relationship between juvenile delinquency and adult criminal behavior. The question is, are juveniles who are delinquent and drug users more likely to commit crimes

of high seriousness in adulthood? This question has both practical and theoretical importance. The theoretical significance stems from two concerns. First, few studies have attempted to examine the impact of juvenile individual- level socioeconomic factors on adult criminal activity. The lack of longitudinal models of crime remains a hindrance to the development of substantive models of criminal career continuity from juvenile delinquency to adult criminality.

Secondly, the role and effect of drug- related crimes at an early stage in one's life on adult criminality are not well understood. The lack of longitudinal approaches concerning drug abuse in the juvenile period and its effect on future delinquency is a serious theoretical gap in criminology.

The policy implications surrounding career offenders has become a central focus of criminal justice system policy. It is well known by criminologists that a few career and chronic offenders commit a disproportionate share of all crimes. They commit a large number of all delinquent acts as youths and then move into adult criminality, where they continue to commit crimes in great numbers. In order to reduce this crime rate, policy makers must develop specific and unique programs to deal with the small number of career offenders who commit crimes throughout the life course in disproportionate numbers.

This study has examined a number of broad research hypotheses dealing with the question, are juveniles who are delinquents and drug users more likely to commit crimes of high seriousness in adulthood? The first hypothesis states that those juveniles who have come into contact with the law are more likely to participate in adult criminal

activity than those juveniles who have not come into contact with the law. The empirical findings support this hypothesis. It has been asserted by many traditional theorists (Cohen, 1955; & Sutherland, 1924) that early criminal socialization leads to future delinquent behavior. This line of thought has been reasserted in modern times by life course theorists. According to life theory, early socialization experiences exert considerable influence on the conformity to expected societal rules and norms. Childhood and teenage life experiences within the bounds of law are believed to facilitate normal adult careers that are not interrupted with episodes of deviant and criminal behaviors. Thus, juveniles who have come into contact with the law are more likely to have had socialization experiences that run counter to societal expectations of civil and legal behaviors. Life course theorists contend that the socialization of juveniles at an early age to the ways and means of the criminal lifestyle predisposes them to future criminal conduct as adults. Furthermore, they assert that juveniles with a history of delinquency are more likely to commit crimes in the future because they have shown by prior conduct that they have successfully neutralized all impediments to desist.

The second hypothesis states that those juveniles who had a drug contact are more likely to have crimes of high seriousness in adulthood than those that did not use drugs but had a police contact for other unlawful behavior. The empirical findings support this hypothesis. Pharmacological factors become important in reinforcing and upholding regular patterns of drug abuse and consequential crime. The body becomes accustomed to the drugs in its system and relies on these substances to establish a relatively normal equilibrium. Furthermore, the drug- crime relationship is a biopsychosocial problem.

Thus, certain biological effects are produced by the drug itself, coupled with the psychological dependence users often develop to a drug and with the social and cultural facilitators of drug abuse. This situation perpetuates drug abuse and the crimes associated with it.

The third hypothesis states that those juveniles who received a sanction are less likely to commit a crime of high seriousness in adulthood than those who received no sanction. The empirical findings do not support this hypothesis. In fact, the data imply that juveniles who received a sanction are much more likely to commit crimes of high seriousness in adulthood than those who received no sanction. In a similar study of males and females born in 1949, Shannon reported similar findings. He reported the following progression of contacts with the police: Of 677 white males, about 61% (414) acquired a contact between the ages of 6 and 17. Of those, 326 acquired a record after age 18. In sum, of those white males receiving a police contact in the juvenile period, approximately 78% acquired a subsequent record. In contrast, of the white males who did not receive a juvenile police contact in the juvenile period, about 50% went on to commit crimes in adulthood. Thus, those labeled juvenile delinquents by the criminal justice system were more likely than those not so labeled to acquire police contacts in adulthood (78% as compared to 50%) (Jensen & Rojek, 1980).

These results can best be explained using labeling theory. Whereas deterrence theory states that the more an individual becomes involved with the criminal justice system (the police, courts, corrections) the less likely he/she is to commit a crime in the future, labeling theory espouses the exact opposite view. These theoreticians argue that the more

an individual becomes involved with the criminal justice system the more he/she is likely to commit criminal acts in the future. The labeling theorists' primary criticism of juvenile justice is the possible deleterious effects of official processing and adjudication for those juveniles apprehended by the system. In this view, the intervention by the juvenile justice system does not deter future delinquency through the fear of further apprehension and processing, nor does it prevent further delinquency through rehabilitation. Rather, the labeling perspective has emphasized the role that intervention by the juvenile justice system may play in facilitating future criminal careers (Jensen & Rojek, 1980). Thus, labeling is concerned with the effect of contact with the criminal justice system on a juvenile's future behavior. The basic premise is that being labeled as deviant by formal social control agents forces the juvenile to act according to the label. Future deviance, therefore, is a result of being contacted and adjudicated by the system. The behavior is a consequence of action by the social structure and not of the individual. The juvenile is simply responding to the actions of society in the only way made available to him/her (Whitehead & Lab,1990). This view of labeling treats the label as an independent variable, a causal agent, which then creates deviant behavior. There are two ways in which this can take place:

1. The label may catch the attention of the labeling audience, inducing them to monitor and continue the labeling of the individual;

2. The label may be internalized by the individual causing a self-fulfilling prophecy that leads to acceptance of the deviant self-concept. Either of these processes may

amplify the juvenile deviance and create a career criminal (Williams and McShane, 1988).

The fourth hypothesis states that those juvenile drug users who were sanctioned for a drug offense are more likely to commit crimes of high seriousness as an adult than those who were sanctioned for other crimes as juveniles The empirical evidence supports this hypothesis. Furthermore, those juvenile offenders who had a drug contact are more likely than nonoffenders to commit a crime of high seriousness in adulthood. Also, those juvenile offenders who had a nondrug contact are more likely than nonoffenders to commit a crime of high seriousness in adulthood. The likelihood of continuity from delinquent acts as a juvenile into committing criminal behaviors as an adult, including that of drug use, is of major concern to those in the criminal justice system. The effectiveness of sanctions for breaking the law as a juvenile is of crucial importance in reducing the likelihood of committing crimes as an adult. This raises issues with respect to the effectiveness of deterrence on juvenile delinquency. In particular, it is of crucial importance to policymakers to determine whether deterrence for drug use plays a significant role in reducing future adult criminal activities.

The evidence in this study shows that deterrence has an effect on crimes of high seriousness in adulthood. However, the effect of deterrence in terms of the likelihood of continuity is diminished among drug users. Deterrence does not have a great effect against drugs. This is evidenced in table 30 & 32 of this study. From Table 30 three observations can be made. First, we see that those juveniles having a drug contact are about 80 times more likely to commit a crime of high seriousness in adulthood than are

those juveniles having no contact. Second, the table suggests that those juveniles having a nondrug contact are about 34 times more likely to commit a crime of high seriousness in adulthood than are those juveniles having no contact. Third, is to examine the difference between those having contact for drug crimes and those having contact for nondrug crimes. These numbers suggest that juveniles having contacts for drugs are approximately 50% more likely to recidivate in adulthood with crimes of high seriousness than are those having a non drug contact. In table 32 four more observations can be made. First, Those juvenile receiving a drug sanction are approximately 38 times more likely to commit a crime of high seriousness in adulthood than are those who had no contact. Second, those juveniles receiving a contact for a nondrug crime are approximately 20 times more likely to commit a crime of high seriousness in adulthood than are those having no contact. Third, is to examine the difference between those receiving a drug sanction and those receiving a nondrug sanction. These numbers suggest that juveniles receiving a drug sanction are18 times more likely to recidivate than are those having a nondrug sanction. Fourth, is to recognize the diminished affect of deterrence on the likelihood to recidivate. We can examine the decrease in magnitude of the likelihood of recidivism by comparing the results presented in table 30 which deals with type of juvenile contact and table 32 which deals with the effects of sanctions on future contacts. Compare coefficients of juvenile drug contact (table 30) with juvenile drug sanctions (table 32) and, juvenile non-drug contact (table 30) with juvenile non-drug sanction (table 32). We can easily see that the exponential beta coefficients decrease from table 30 to table 32. This is due to the effect of deterrence. However, in table 32 we can

see that the affect of deterrence is minimized on drug users. Thus, it must be recognized that deterrence does not have a linear or homogeneous effect across all types of offenders. The degree of deterrent effect on future criminal activity is often mitigated by circumstances unique to that individual. The offender who is involved with drug abuse and the lifestyle that surrounds it best exemplifies this situation. This way of life diminishes the effectiveness of official deterrence techniques. This is to an extent because drug abuse is a biopsychosocial phenomenon. Thus, as noted earlier, certain biological effects are produced by the drug itself, coupled with the psychological dependence users often develop to a drug, as well as the social and cultural facilitators of drug abuse. It must also be mentioned that the evidence presented in Tables #29 and #31 support the theory of deterrence (see appendix). It can be seen that the likelihood of committing an offense in adulthood is reduced by the implementation of deterrence. However, the deterrent effect is minimal and does not have as much effect on adult crimes of high seriousness as does drug abuse.

The last two hypotheses are examined together because they involve the same subpopulation of offenders. The restricted entry is for juvenile drug users only. Also, the results obtained in this study concerning juvenile hard drug usage versus soft drug usage and juvenile consumers versus distributors are likely due to a similar explanation.

The fifth hypothesis states that those cohort members who were distributors of drugs are more likely to commit serious offenses in adulthood than those who were simply consumers. The empirical evidence does not support this hypothesis. In fact, juvenile

drug consumers are just as likely as distributors to commit crimes of high seriousness in adulthood.

The sixth hypothesis states that those cohort members who, as juveniles, used marijuana, a soft drug, are not more likely to commit crimes of high seriousness in adulthood than those members who used hard drugs. The empirical evidence does not support this hypothesis. Findings from multivariate analysis suggest that no significant difference exists between soft drug users and hard drug users concerning the prevalence of serious crimes committed in adulthood. Thus, marijuana users are just as likely to commit crimes of high seriousness in adulthood as are users of other illegal substances. The results of these two hypotheses can be explained by three significant factors. First, is the idea that marijuana is a gateway drug that not only leads to harder drugs but also to other types of criminal behavior. Thus, it makes sense for law enforcement officials to focus on drugs that are stepping-stones to harder drugs. Second, because marijuana and other drugs are controlled substances, the juvenile consumer must associate with surreptitious people who are actively involved in a criminal network. These people often are involved in many criminal activities, and the juvenile consumer is then exposed to a variety of crimes and criminals. Many proponents of marijuana legalization assert that it would be far better to legalize the substance than to have these nonoffenders associate with people who are participating in of crime. Essentially, once a juvenile is in this drug web, the juvenile becomes an active participant in a network of criminal activities. This neutralization of the moral and ethical standards of the society at large and the rationalization for it are used by crime prone juveniles to cognitively deflect criticism for

their actions. Sociologically, this is known as techniques of neutralization (Sykes & Matza 1957).). Articulate offenders can use these techniques of neutralization to rationalize their behavior because of the complete belief in their value system (Verdeyen, 1999). This induces juveniles to move on to other drugs and to contemplate different types of criminal activity. This induces juveniles to move on to other drugs and to contemplate different types of criminal activity.

Theoretical and Program Implications

Theory

Deterrence plays a major role in the American criminal justice system. In large part, the U.S. system of police, courts, and corrections is based on deterrence. Deterrence as a mechanism of social control, however, has not lived up to the expectations of theoreticians or policymakers. The recidivism rate for many types of offenders and offenses is high. This is especially true for drug offenders. Theoretically, life course theory suggests that many juveniles have inadequate socialization to mainstream values or that they have been socialized to a deviant way of life. Life course theory suggests that social scientists must examine the subculture and socialization processes of juvenile drug users. These subcultures and their attendant networks of criminal associations provide an enclave for juveniles to experiment with drugs and other types of illegal behaviors. Furthermore, these social networks promote and reinforce drug use and its consequential lifestyle. The new social networks developed by juveniles in a drug- using environment promote deviant behaviors. In order to reduce the likelihood of recidivism,

the juvenile drug user must be resocialized into mainstream values and norms. This resocialization is best accomplished via diversionary programs.

In addition, policymakers must remember that deterrence is just a theory and not a law that affects everyone and every crime in the same way. Essentially, deterrence comes in degrees. Thus, deterrence does not have a linear or homogeneous affect across all types of offenders and offenses. This study suggests that deterrence does in fact have an inhibitory affect. However, the data also suggest that drug use and its accompanying lifestyle diminish the overall effects of deterrence. Essentially, each juvenile drug defendant is treated in the same way as any other defendant at the time of sentencing. Then deterrence is applied uniformly. This policy must be revised because juvenile drug users are more likely to commit crimes of high seriousness in adulthood than nondrug offenders. Usually the approach taken follows a medical model in which the emphasis is on slowly enabling the patient to function fully using biochemical and physical therapies. However, the findings of this study suggest that drug offenders are much more likely to commit crimes of high seriousness in adulthood. Among the drug offenders, whether one was a soft drug offender or a hard drug offender did not make a significant difference in terms of the likelihood of continuity. Also, among the drug offenders whether one was a consumer or a distributor did not make a significant difference in terms of the likelihood of continuity. Thus, the involvement in drug culture increases the likelihood of continuity. Drug related offenses are embedded in the culture and lifestyles of the offenders. In essence, it is part of their culture. Consequently, society must stop following the medical model blindly and concentrate on social network theory. This

theory examines the intricate web of relationships drug-using juveniles establish in order to buy and sell narcotics in an underground culture. This, for many of them, is a way of life. In addition, the data suggest that those juveniles receiving a sanction are more likely to commit a crime of high seriousness in adulthood than those juveniles not receiving a sanction. This is best explained by labeling theory.

> Labeling advocates are concerned with the effect on the person who is labeled. This aspect of labeling treats the label as an independent variable, a causal agent, which then creates deviant behavior. There are two ways in which this may take place: (1) the label may catch the attention of the labeling audience, causing them to watch and continue the labeling of the individual; or (2) the label may be internalized by the individual and lead to an acceptance of a deviant self concept. Either of these processes may amplify the deviance and create a career deviant. (Williams & McShane, 1988, p. 88)

Program

Programmatically, two options exist. First, are pre-trial diversion programs. A review of programs currently available in the U.S. which targeted drug using offenders at the pre-trial stage in the criminal justice process categorized the programs into four types: Treatment Alternatives to Street Crime, Drug Courts, Monitoring/ Pretrial Release/Conditional Release, and Alternative Community Intervention. A general theme of all of the programs was the use of some form of sanction or control with some form of drug treatment strategy.

Treatment alternatives to street crime is (TASC) one of the first pre-trial diversion programs designed to intervene in the cycle of drug use and criminal activity. The program combines the criminal justice system with drug treatment services from the community, in order to refer drug offenders to appropriate treatment services. Referral criteria stipulate that the offenders be accused of non-violent crimes. Participation in the program serves as an alternative or supplement to criminal justice sanctions. Also, TASC follows the offender's progress, and reports back to the referring criminal justice agencies (Jenkins, 1995).

The heavy number of drug-related cases in the courts generated the development of the drug courts. At present, there is no standard protocol for drug courts. However, common themes are seen throughout the specialized courts. These courts are equipped to hand down a variety of sentencing options (Jenkins, 1995).

A number of strategies exist for the monitoring of drug offenders. Such strategies can be applied individually or in combination with other strategies. Several drug-testing methods are available. The most common is the urinalysis test. Other strategies to enforce compliance are intensive supervision, home visits, home detention, and day reporting (Jenkins, 1995).

Numerous innovative programs exist for diverting drug offenders. All of the programs are made up of a number of elements that employ some type of case management. (Jenkins, 1995).

The second option is to treat offenders in penal institutions. The national rate of admissions to detention facilities for juveniles has grown 40% between 1985 and 1995.

While this figure grew for all types of offenses, some offense types are over represented in the detention population. The most striking is the number of drug offenders, which increased 200% between 1985 and 1989 (Wordes and Jones, 1998). There is evidence that drug use by adolescents is on the increase in the U.S. As concern about juvenile substance abuse has grown, so has increased attention about providing education and treatment (Newburn, 1998). Research in the last 5 years suggests that well-designed prison-based treatment can reduce recidivism rate and drug relapse. This is especially true when combined with community aftercare programs such as assistance with education, housing, and health care (Belenko, Peugh, Califano Jr., Usdansky, & Foster, 1998).

Evaluations of prison-based substance abuse programs primarily focus on residential treatment programs and indicate that length of stay of treatment and aftercare availability are important factors in success. For example, Amity Righturn, a prison based program at the R. J. Donovan medium security prison in San Diego, reduced reincarceration rates in one year to 26% for Amity graduates who completed aftercare, compared with 43% Amity graduates who did not complete aftercare, 50% for Amity program dropouts and 63% for a control group (Belenko et al., 1998).

In an interesting article by Knight, Simpson, Chatham, and Camacho, (1997), the authors describe and evaluate a comprehensive prison-based drug treatment program for men in Kyle, Texas. Their data set consisted of 293 participants. Data were collected before and during treatment for 222 of the participants. Further data were collected six months later. The remaining 71 participants were parolees not sent to treatment. Result

show that 80% of the parolees referred to prison-based treatment graduated. These graduates showed significant reductions in their criminal conduct and drug use from the six months prior to entering prison to the six months after leaving prison. In addition, graduates had lower relapse and recidivism rates in the six months after leaving prison than did the parolees in the non- treatment program.

In another study by Sealock, Gottfredson, and Gallagher,(1997) approximately 700 drug-using offenders were assigned to either a 60 day residential substance abuse treatment program group or a comparison group. Youth who participated in the residential program reported significantly decreased drug use and delinquency and increased decision-making skills. Also, the time interval between release and recidivism was greatly extended for participant in the experimental group.

Overall, these programs seem to be working. For those programs that have met with little success, there seems to be a lack of screening/ assessment/ treatment services for substance use in many communities and a large number of troubled youths do not connect with existing programs. A more enlightened implementation of a delivery system is needed, which consists of at least five interrelated activities: (1) preliminary screening, (2) in-depth and broad assessment, (3) intervention/treatment, (4) aftercare, and (5) long-term continuity of service (Dembo, 1996).

Recommendations for Future Study

Further research is needed to examine criminal careers from juvenile delinquency to adult criminality. Special focus should be applied to the juvenile drug offender to determine the likelihood of recidivism. Furthermore, other studies must examine the idea

of radical nonintervention in juvenile justice in order to determine its usefulness. The study presented here has three major limitations. In order to do this analysis, the categories of crimes had to be collapsed in such a manner that certain types of crimes were grouped with others of a slightly different nature. This study could be modified in such a way that the types of crimes are more finely delineated. Secondly, the racial make-up of the data set used in this study was not widely representative of the minority population. Approximately 90% of the cohort members were Anglo with 7% African American and 3% Hispanic and other. Also, in our study all juveniles having a police contact were lumped together. In the future it would be better to employ Smith & Gartin's (1989), technique of specifying the exact number of contacts a juvenile has. This will permit researchers to study the influence of multiple contacts. In addition, this method will yield information regarding the affect of sanctions on each succeeding contact. There, therefore, exists a tremendous potential for sociologists to probe into career continuity and to develop programs that will alleviate the need for more incarceration.

APPENDIX

ILLUSTRATION AND TABLES

Figure 1

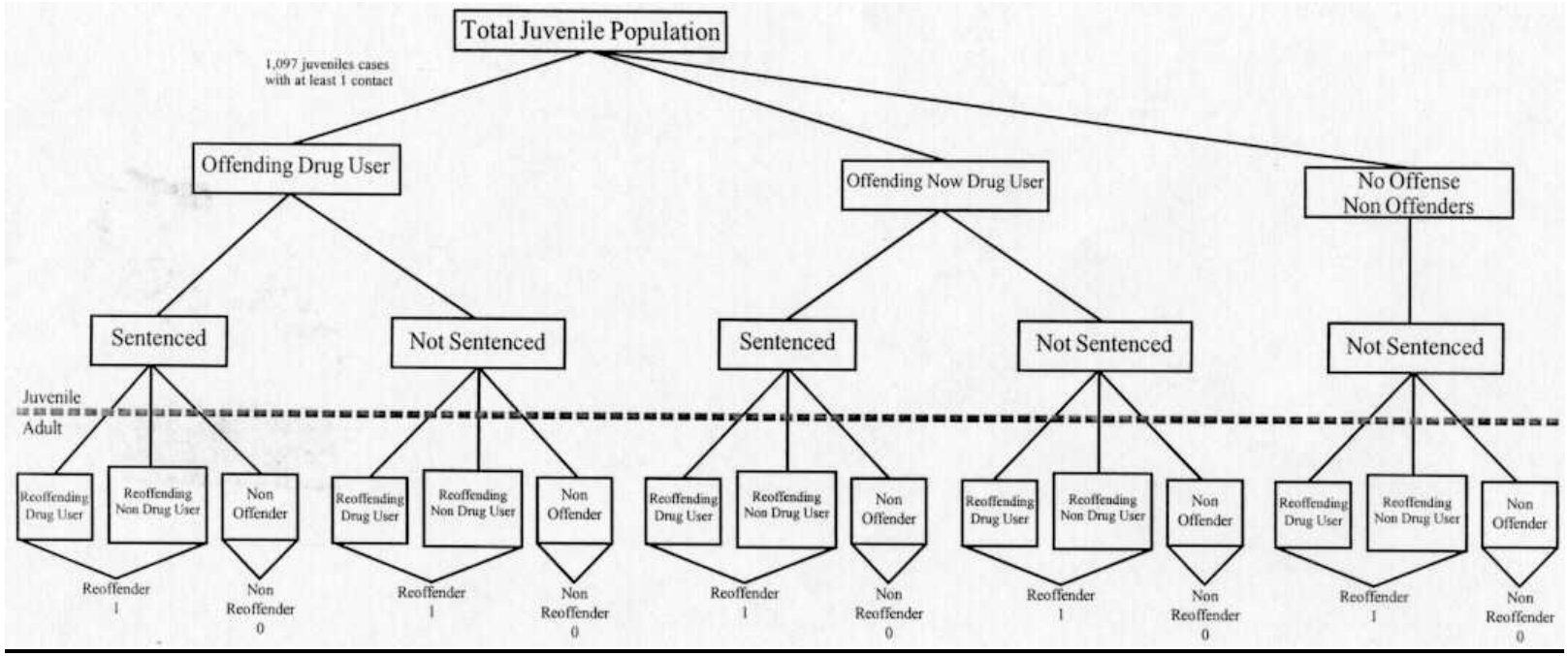
Total Juvenile Population
1,097 juveniles cases with at least 1 contact
Offending Drug User
Offending Now Drug User
No Offense Non Offenders
Sentenced
Not Sentenced
Sentenced
Not Sentenced
Not Sentenced
Juvenile
Adult
Reoffending Drug User
Reoffending Non Drug User
Non Offender
Reoffender 1
Non Reoffender 0

Table 2
Frequency and Percentage Distribution for Type Contact Juvenile 1955 Cohort

First Offense			**Second Offense**			**Third Offense**		
Categories	Freq	%	Categories	Freq	%	Categories	Freq	%
No offense	1231	46	No Offense	1757	65.7	No offense	2026	75.7
Robbery	2	0.1	Robbery	1	0	Robbery	4	0.1
Burglary	25	0.9	Burglar	14	0.5	Burglary	18	0.7
Theft	156	5.8	Theft	88	3.3	Theft	68	2.5
Auto Theft	2	0.1	Auto	6	0.2	Auto Theft	4	0.1
Disorderly Conduct	238	8.9	Disorderly Conduct	173	6.5	Disorderly Conduct	111	4.1
Vagrancy	15	0.6	Vagrancy	14	0.5	Vagrancy	4	0.1
Liquor	37	1.4	Liquor	26	1	Liquor	14	0.5
Runaway	270	10.1	Runaway	164	6.1	Runaway	122	4.6
Truancy	4	0.1	Truancy	6	6.1	Assault	13	0.5
Assault	12	0.4	Assault	17	0.6	Sex offenses	6	0.2
Sex Offenses	8	0.3	Sex offense	9	0.3	Drugs	14	0.5
Drugs	24	0.9	Drugs	13	0.5	Forgery	2	0.1
Forgery	1	0	Moving traffic offenses	222	8.3	Moving traffic offenses	135	5
Moving Traffic Offenses	383	14.3	Traffic	1	0	Weapons	6	0.2
All Other Traffic Offenses	1	0	Weapons	1	0	Fraud	3	0.1
Weapons	2	0.1	Fraud	8	0.3	Escapee	1	0
Fraud	6	0.2	Escapee	1	0	Violent property destruction	5	0.2
Escapee	1	0	Violent property destruction	7	0.3	Contact	102	3.8
Violent Property Destruction	2	0.1	Contact	131	4.9	Obscene	1	0
Contact	230	8.6	Obscene	1	0	Suicide	4	0.1
Obscene	1	0	Suicide	1	0	Burglary & theft	1	0
Suicide	7	0.3	Theft & Disorderly conduct	3	0.1	Disorderly conduct & Runaway	2	0.3
Auto Theft (twice)	1	0	Liquor & drugs	1	0	Disorderly conduct & Moving traffic off	3	1
Liquor and Drugs	2	0.1	Disorderly conduct & Runway	1	0	Vagrancy & Runaway	1	0
Disorderly conduct &Runaway	1	0.1	Liquor & runaway	1	0	Liquor & Moving traffic	2	1
Moving Traffic & Auto theft	1	0	Drugs &Moving traffic offenses	1	0	Robbery & Runaway	1	0
Vagrancy & Liquor	1	0	Liquor &Sex offenses	1	0	Runaway & Drugs	1	0
Moving traffic & Liquor	1	0	Theft & Violent property destruction	1	0	Disorderly conduct & sex offense	1	0
Theft &Violent Property Destruction	1	0	Disorderly conduct & Drugs	3	1	Theft & Sex offense		
Disorderly conduct & Weapons	2	0.1	Runaway & Moving traffic offenses	1	0.1	Disorderly conduct, Vagrancy & Liquor	1	0
Disorderly & Assault	1	0	Sex offenses & Drugs	1	0.1	TOTAL	2676	100
Auto Theft, Disorderly	1	0	Drugs & Weapons	1	0			
conduct & Liquor	1	0	TOTAL	2676	100			

(Table Continues)

Sex Offenses	1	0
Liquor & forgery	1	0
Liquor, Runaway & Moving traffic	1	0
Runaway & Sex offense	1	0
Auto theft &Vagrancy	1	0
TOTAL	1	0
	2676	100

Fourth offense			**Fifth offense**		
Categories	Freq	%	Categories	Freq	%
No offense	2173	81.2	No offense	2264	84.6
Robbery	4	0.1	Robbery	5	0.2
Burglary	18	0.7	Burglary	19	0.7
Theft	55	2.1	Theft	34	1.3
Auto Theft	5	0.2	Auto theft	1	0
Disorderly Conduct	102	3.8	Disorderly Conduct	79	3.9
Vagrancy	5	0.2	Vagrancy	3	0.1
Liquor	6	0.2	Liquor	8	0.3
Runaway	77	2.9	Runaway	76	2.8
Truancy	2	0.1	Truancy	3	0.1
Assault	11	0.4	Assault	9	0.3
Sex offenses	2	0.1	Sex offenses	3	0.1
Drugs	16	0.6	Drugs	13	0.5
Forgery	3	0.1	Forgery	2	0.1
Moving traffic offense	93	3.5	Moving traffic offense	68	2.5
Traffic violation	1	0	Weapons	3	0.1
Weapons	3	0.1	Fraud	1	0
Fraud	1	0	Violent property destruction	5	0.2
Escapee	1	0	Contact	65	2.4
Violent property destruction	7	0.3	Suicide	2	0.1
Contact	72	2.7	Truancy & Runaway	1	0
Suicide	1	0	Auto theft(twice)	2	0.1
Runaway & Assault	1	0	Liquor & Drugs	2	0.1
Theft & Disorderly conduct	1	0	Liquor & Runway	1	0
Auto theft &Moving Traffic off.	2	0.1	Disorderly Conduct & Moving traffic	1	0
Drugs & Moving traffic off.	2	0.1	Drugs & Moving traffic offense	1	0
Vagrancy & Runaway	2	0.1	Disorderly conduct & Drugs	1	0
Theft, Disorderly conduct & Runaway	1	0	Moving traffic offense & Weapons	1	0
Theft, Disorderly conduct & Drugs	4	1	Sex offenses & Disorderly conduct	1	0
Disorderly conduct & Weapons	1	0	Theft, Liquor & Truancy	1	0
Disorderly conduct & Vagrancy	1	0	TOTAL	2676	100
Runaway & Moving traffic off.	1	0			
Assault & weapons	1	0			
theft & Drugs	1	0			

(Table Continues)

Auto theft & weapons	1	0
TOTAL	2676	100

Sixth offense			**Seventh offense**			**Eighth offense**		
Categories	Freq	%	Categories	Freq	%	Categories	Freq	%
No offense	2340	87.4	No offense	2377	88.8	No offense	2415	90.2
Robbery	3	0.1	Robbery	5	0.2	Robbery	1	0
Burglary	9	0.3	Burglary	18	0.7	Burglary	14	0.5
Theft	30	1.1	Theft	32	1.2	Theft	24	0.9
Auto theft	6	0.2	Auto theft	8	0.3	Auto theft	5	0.2
Disorderly conduct	64	2.4	Disorderly conduct	57	2.1	Disorderly conduct	48	1.8
Vagrancy	4	0.1	Vagrancy	2	0.1	Vagrancy	5	0.2
Liquor	7	0.3	Liquor	3	0.1	Liquor	6	0.2
Runaway	75	2.8	Runaway	55	2.1	Runaway	45	1.7
Truancy	1	0	Assault	7	0.3	Assault	6	0.2
Assault	5	0.2	Sex offenses	2	0.1	Sex offenses	6	0.2
Sex offenses	2	0.1	Drugs	8	0.3	Drugs	6	0.2
Drugs	13	0.5	Forgery	2	0.1	Forgery	6	0
Forgery	2	0.1	Moving traffic offenses	36	1.3	Moving traffic offenses	32	1.2
Moving traffic offenses	46	1.7	Weapons	3	0.1	Weapons	2	0.1
Weapons	2	0.1	Fraud	1	0	Fraud	2	0.1
Gambling	1	0	Escapee	2	0.1	Escapee	1	0
Violent property destruction	3	0.1	Violent property destruction	2	0.1	Violent property destruction	2	0.1
Contact	50	1.9	Contact	45	1.7	Contact	46	1.7
Suicide	1	0	Theft & Runaway	1	0	Suicide	1	0
Runaway & Truancy	1	0	Liquor & Drugs	1	0	Moving traffic offenses & Drugs	2	0.1
Disorderly conduct & Runaway	1	0	Disorderly conduct & Runaway	1	0	Burglary & Violent property destruction	1	0
Auto theft & Moving traffic offense	1	0	Drugs & Moving traffic offense	1	0	Disorderly conduct & Sex offenses	1	0
Liquor & Runaway	1	0	Vagrancy & Runaway	1	0	Disorderly conduct, Liquor & Runaway	1	0
Disorderly conduct & Moving traffic	1	0	Disorderly conduct & Runaway	1	0	Runaway & Weapons	1	0
Runaway & Drugs	1	0	Theft & Sex offenses	1	0	Sex offenses & Drugs	1	0
Disorderly conduct & Weapons	1	0	Forgery & Theft	1	0	Assault & Weapons	1	0
Disorderly conduct, Vagrancy & Liquor	1	0	Theft & Drugs	1	0	TOTAL	2676	100
Theft, Vagrancy, & Runaway	1	0	Burglary & Disorderly conduct	1	0			
Theft, Disorderly conduct & Drugs	1	0	Not ascertained	1	0			
TOTAL	2676	100	TOTAL	2676	100			

Table continues

Ninth offense			**Tenth offense - Eighty-third offense**		
Categories	Freq	%	Categories	Freq	%
No offense	2446	91.4	Robbery	64	0.02140
Robbery	4	0.1	Burglary	208	0.06957
Burglary	19	0.7	Theft	309	0.10334
Theft	17	0.6	Auto theft	93	0.03110
Auto theft	1	0	Disorderly conduct	620	0.20736
Disorderly conduct	44	1.6	Vagrancy	49	0.01639
Vagrancy	3	0.1	Liquor	42	0.01405
Liquor	4	0.1	Runaway	417	0.13946
Runaway	41	1.5	Truancy	10	0.00334
Truancy	4	0.1	Assault	82	0.02742
Assault	12	0.4	Sex offenses	27	0.00903
Sex offenses	3	0.1	Drugs	120	0.04013
Drugs	7	0.3	Forgery	32	0.01070
Moving traffic offense	26	1	Homicide	4	0.00134
Weapons	3	0.1	Moving traffic offenses	273	0.09130
Fraud	1	0	All other traffic violations	1	0.00033
Escapee	2	0.1	Weapons	31	0.01037
Violent property destruction	3	0.1	Fraud	20	0.00669
Contact	29	1.1	Family	0	0.00000
Disorderly conduct & Moving traffic offense	1	0	Gambling	0	0.00000
Disorderly conduct & Drugs	1	0	Escapee	24	0.00803
Moving traffic offense & Weapons	1	0	Violent property destruction	29	0.00970
Assault & Theft	1	0	Contact	374	0.12508
Auto theft, Disorderly conduct & Liquor	1	0	Obscene	1	0.00033
Drugs, Forgery & Fraud	1	0	Suicide	1	0.00033
Burglary, Theft & Weapons	1	0	Disorderly conduct & Runaway	7	0.00234
TOTAL	2676	100	Liquor & Moving traffic offenses	2	0.00067
			Disorderly conduct & Drugs	9	0.00301
			Moving traffic offenses & Weapons	2	0.00067
			Sex offenses and Moving traffic offenses	1	0.00033
			Weapons & Robbery	1	0.00033
			Auto theft, Runaway & Moving traffic offenses	2	0.00067
			Theft & Liquor	1	0.00033
			Disorderly conduct & Weapons	3	0.00100
			Burglary, Runaway & Weapons	2	0.00067
			Disorderly conduct, Sex offenses, Moving traffic	1	0.00033
			Disorderly conduct, Liquor, Runaway & Moving traffic	1	0.00033
			Runaway & Truancy	5	0.00167

(Table continues)

			Theft & Runaway	4	0.00134
			Disorderly conduct, Drugs & Weapons	2	0.00067
			Runaway & Sex offenses	1	0.00033
			Burglary & Sex offenses	1	0.00033
			Runaway & Contact	1	0.00033
			Violent property destruction & Disorderly conduct	1	0.00033
			Liquor & Runaway	4	0.00134
			Theft & Moving traffic offenses	1	0.00033
			Theft & Auto theft	1	0.00033
			Burglary & Liquor	1	0.00033
			Theft, Disorderly conduct & Violent property destruction	2	0.00067
			Auto theft & Liquor	1	0.00033
			Burglary, Sex offenses & Violent property destruction	1	0.00033
			Burglary & Disorderly conduct	1	0.00033
			Theft & Disorderly conduct	2	0.00067
			Theft & Violent property destruction	1	0.00033
			Runaway & Violent property destruction	2	0.00067
			Disorderly conduct and Assault	3	0.00100
			Runaway, Assault & Weapons	1	0.00033
			Burglary & Theft	1	0.00033
			Liquor & Drugs	2	0.00067
			Disorderly conduct Runaway & Violent property destruction	1	0.00033
			Burglary & Weapons	3	0.00100
			Assault & Weapons	1	0.00033
			Liquor & Weapons	1	0.00033
			Sex offenses & Theft	1	0.00033
			Robbery & Theft	1	0.00033
			Robbery, Runaway & Weapons	1	0.00033
			Runaway & Truancy	4	0.00134
			Auto theft (twice)	3	0.00100
			Disorderly conduct & Liquor	4	0.00134
			Weapons & Theft	2	0.00067
			Auto theft, Disorderly conduct & Liquor	1	0.00033
			Assault & Drugs	1	0.00033
			Disorderly conduct & Moving traffic offenses	15	0.00502
			Auto theft & Moving traffic offenses	5	0.00167
			Runaway & Moving traffic offenses	2	0.00067
			Assault & Weapons	3	0.00100
			Theft, Runaway & Forgery	1	0.00033

(table continues)

			Robbery & Drugs	1	0.00033

			Burglary & Runaway	1	0.00033
			Theft & Sex offenses	4	0.00134
			Drugs & Forgery	1	0.00033
			Vagrancy & Liquor	1	0.00033
			Drugs, Moving traffic offenses & Weapons	2	0.00067
			Theft & Drugs	2	0.00067
			Disorderly conduct, Liquor & Weapons	2	0.00067
			Disorderly conduct, Vagrancy & Runaway	1	0.00033
			Burglary & Auto theft	1	0.00033
			Theft, Liquor & Runaway	1	0.00033
			Drugs & Moving traffic offenses	1	0.00033
			Vagrancy & Runaway	1	0.00033
			Robbery & Sex offenses	1	0.00033
			Assault & Liquor	1	0.00033
			Burglary & Moving traffic offenses (twice)	1	0.00033
			Weapons, Theft & Runaway	1	0.00033
			Disorderly conduct & Sex offenses	1	0.00033
			Vagrancy & Weapons	1	0.00033
			Burglary, Disorderly conduct & Drugs	1	0.00033
			Drugs & Moving traffic offenses	1	0.00033
			Disorderly conduct & Auto theft	1	0.00033
			Disorderly conduct, Drugs & Weapons	1	0.00033
			Assault & Weapons	1	0.00033
			Sex offenses & Auto theft	1	0.00033
			Disorderly conduct & Moving traffic offenses	1	0.00033
			Disorderly conduct, Vagrancy & Gambling	1	0.00033
			Runaway & Escapee	1	0.00033
			Disorderly conduct Vagrancy	1	0.00033
			Theft & Assault	1	0.00033
			Burglary & Disorderly conduct	1	0.00033
			Moving traffic offenses, Disorderly conduct & Drugs	1	0.00033
			TOTAL Number of offenses	2990	100%

Table 3
Frequency and Percentage Distribution of Juvenile Drug Use

Categories	Frequency	%
No offense	2112	95.5
Drug offense	101	4.5
Total	2223	100

Table 4
Frequency and Percentage Distribution of Juvenile NonDrug Crime

Categories	Frequency	%
Non offender	1405	63.2
Juvenile non drug crime	818	36.8
Total	2223	100

Table 5

Frequency and Percentage Distribution of Type Contact Adult First-Fifth Offense (N=2676)

First offense			**Second offense**		
Categories	Frequency	%	Categories	Frequency	%
Burglary	1	0.3	Theft	11	3.7
Theft	6	1.7	Auto theft	2	0.7
Auto theft	1	0.3	Disorderly conduct	69	23.2
Disorderly conduct	66	19.0	Vagrancy	1	0.3
Liquor	8	2.3	Liquor	3	1.0
Assault	2	0.6	Runaway	1	0.3
Sex offenses	2	0.6	Assault	3	1.0
Drugs	8	2.3	Sex offenses	2	0.7
Moving traffic offenses	200	57.5	Drugs	9	3.0
All other traffic violations	1	0.3	Moving traffic offenses	145	48.7
Fraud	4	1.1	Fraud	5	1.7
Contact	43	12.4	Escapee	1	0.3
Suicide	1	0.3	Violent property destruction	1	0.3
Liquor and drugs	1	0.3	Contact	37	12.4
Liquor and moving traffic offenses	1	0.3	Theft and disorderly conduct	1	0.3
Theft and violent property destruction	2	0.6	Drugs and moving traffic offenses	1	0.3
Disorderly conduct and assault	1	0.3	Liquor and sex offenses	1	0.3
Total number of adult contacts	348	100	Theft and violent property destruct.	1	0.3
			Disorderly conduct and drugs	2	0.7
			Sex offenses and drugs	1	0.3
			Drugs and weapons	1	0.3
			Theft & Disorderly conduct	2	0.2
			Liquor & drugs	1	0.1
			Disorderly conduct & Runaway	1	0.1
			Liquor & Runaway	1	0.1
			Drugs & Moving traffic offense	1	0.1
			Theft & Violent property destruction	1	0.1
			Disorderly conduct & drugs	3	0.3
			Runaway & moving traffic offense	1	0.1
			Sex offenses & drugs	1	0.1
			Drugs & Weapons	1	0.1
			Total number of adult contacts	298	100

(table continues)

Third offense			**Fourth offense**		
Categories	Frequency	%	Categories	Frequency	%
Burglary	3	1.3	Robbery	3	1.6
Theft	11	4.9	Burglary	2	1.1
Disorderly conduct	57	25.4	Theft	12	6.5
Liquor	1	0.4	Auto theft	2	1.1
Assault	2	0.9	Disorderly conduct	49	26.6
Sex offenses	3	1.3	Vagrancy	1	0.5
Drugs	7	3.1	Liquor	1	0.5
Moving traffic offenses	92	41.1	Runaway	1	0.5
Fraud	1	0.4	Assault	1	0.5
Escapee	1	0.4	Drugs	10	5.4
Violent property destruction	2	0.9	Forgery	1	0.5
Contact	36	16.1	Moving traffic offenses	70	37.0
Suicide	3	1.3	Traffic violations	1	0.5
Disorderly conduct and moving traffic offenses	2	0.9	Fraud	1	0.5
Liquor and moving traffic offenses	1	0.4	Escapee	1	0.5
Runaway and drugs	1	0.4	Violent property destruction	2	1.1
Theft and sex offenses	1	0.4	Contact	16	8.7
Total number of adult contacts	224	100	Auto theft and moving traffic offenses	1	0.5
			Drugs and moving traffic offenses	2	1.1
			Disorderly conduct and drugs	3	1.6
			Disorderly conduct and weapons	1	0.5
			Disorderly conduct and vagrancy	1	0.5
			Assault and weapons	1	0.5
			Total number of adult contacts	184	100

(Table continues)

Fifth offense		
Categories	Frequency	%
Robbery	1	0.7
Burglary	2	1.3
Theft	4	2.7
Disorderly conduct	34	22.8
Vagrancy	1	0.7
Liquor	5	3.4
Assault	3	2.0
Drugs	12	8.1
Forgery	2	1.3
Moving traffic offenses	49	32.9
Weapons	2	1.3
Violent property destruction	2	1.3
Contact	23	15.4
Liquor and drugs	2	1.3
Disorderly conduct and moving traffic offenses	2	1.3
Drugs and moving traffic offenses	1	0.7
Disorderly conduct and drugs	1	0.7
Moving traffic offenses and weapons	1	0.7
Disorderly conduct and sex offenses	1	0.7

Table 6
Frequency and Percentage Distribution of Adult Drug Use

Categories	Frequency	%
Non drug offender	2103	94.6
Drug offender	120	5.4
Total	2223	100

Table 7
Frequency and Percentage Distribution of Adult Non Drug Crime

Categories	Frequency	%
Non offender	1545	69.5
Offender	678	30.5
Total	2223	100
Adult crime other than drugs		

Table 8
Frequency and Percentage Distribution of Adult Crimes of High Seriousness

Categories	Frequency	%
Low seriousness	333	15
High seriousness	100	4.5
Non contact	1790	80.5
Total	2223	100

Table 9
Frequency and Percentage Distribution of Juvenile Contacts Ages 6-17

Categories	Frequency	%
0 No Contacts	1579	59
1	476	17.8
2	195	7.3
3	107	4
4	56	2.1
5	47	1.8
6	28	1
7	24	0.9
8	22	0.8
9	10	0.4
10	12	0.4
11	12	0.4
12	11	0.4
13	0.6	0.2
14	5	0.2
15	6	0.2
16	4	0.1
17	5	0.2
18	4	0.1
19	6	0.2
20	5	0.2
21	4	0.1
22	4	0.1
23	3	0.1
24	3	0.1
25	5	0.2
26	2	0.1
27	2	0.1
28	3	0.1
29	1	0
30	1	0
32	1	0
33	3	0.1
34	1	0
35	2	0.1
36	1	0
37	3	0.1
38	3	0.1
39	1	0
40	2	0.1
41	1	0
42	2	0.1

(table continues)

44	2	0.1
45	1	0
46	2	0.1
51	1	0
61	1	0
65	1	0
TOTAL	2676	100

Table 10
Frequency and Percentage Distribution of Adult Contacts 18 and Up

Categories	Frequency		
No contacts	1733	64.8	
1	453	16.9	
2	193	17.2	
3	76	2.8	
4	59	2.2	
5	36	1.3	
6	23	0.9	
7	20	0.7	
8	14	0.5	
7	20	0.7	
8	14	0.5	
9	10	0.4	
10	11	0.4	
11	12	0.4	
12	4	0.1	
13	5	0.2	
14	3	0.1	
15	2	0.1	
16	6	0.2	
17	2	0.1	
18	1	0	
19	4	0.1	
20	1	0	
21	1	0	
25	1	0	
26	2	0.1	
27	2	0.1	
33	1	0	
40	1	0	
TOTAL	2676	100	

Table 11
Frequency and Percentage of Juvenile Offenders

	Frequency	%
Offenders	919	41.3
Nonoffenders	1304	58.7
Total	2223	100

Table 12
Frequency and Percentage of Adult Non Offenders

Categories	Frequency	%
Offense	798	35.9
Non offense	1425	64.1
Other	2223	100

Table 13
Frequency and Percentage Distribution of Juvenile's Area of Socialization

Categories	Frequency	%
1- Area lowest SES	124	4.6
2	134	5 .0
3	43	1.6
4	111	4.1
5	63	2.4
6	46	1.7
7	29	1.1
8	101	3.8
9	48	1.8
10	73	2.7
11	73	2.7
12	113	4.2
13	69	2.6
14	50	1.9
15	29	1.1
16	64	2.4
17	136	5.1
18	128	4.8
19	96	3.6
20	156	5.8
21	23	0.9
22	15	0.6
23	20	0.7
24	3	0.1
25	74	2.8
26 Area Highest SES	16	0.6
30 GRP A-Areas 1& 2	12	0.4
31 GRP B- Areas 3-8	12	0.4
32 GRP C- Areas 9-14	6	0.2
33 GRP D- Areas 15-19	6	0.2
34 GRP E- Areas 20-26	6	0.2
35 GRP F- Areas A+B	63	2.4
36 GRP G- Areas A+C	7	0.3
37 GRP A&D	2	0.1
38 GRP A & E	2	0.1
39 GRP B&C	19	0.7
40 GRP B&D	12	0.4
41 GRP B&E	14	0.5
42 GRP C&D	11	0.4
43 GRP C&E	9	0.3
44 GRP D&E	17	0.6
45 GRP A, B&C	8	0.3
46 GRP A B&D	3	0.1
48 GRP A, C&D	3	0.1
50 GRP B, C&D	2	0.1

(table continues)

52 GRP B, D&E	2	0.1
53 GRP C, D&E	2	0.1
54 GRP A, B, C&D	1	0
57 GRP B, C, D&E	1	0
92	36	1.3
93	36	1.3
95	93	3.5
96	5	0.2
97	2	0.1
98	366	13.7
99 NA	81	3
TOTAL	2676	100

Table 14
Frequency and Percentage Distribution of Juvenile Inner City Residence 1955 Cohort*

Categories	Frequency	%
Not Continuous resident	86	3.9
Inner city	430	19.3
Non Inner City	1339	60.2
Missing/ not ascertained	368	16.6
TOTAL	2223	100

*Individuals selected for inclusion in this analysis met one or both of two different definitions of continuous residence in Racine

Table 15
Frequency and Percentage Distribution of Reason for Having Drug*

Categories	Frequency	%
No offense	2177	97.90
None found	2	0.10
Mention	1	0.00
Victim	4	0.20
Possession	25	1.10
Possession with intent to deliver	6	0.30
Selling	1	0.00
Delivery	5	0.20
Suspected possession	1	0.00
Overdose	1	0.00
TOTAL	2223	100.00

*Offenders in this table had a contact for drugs as their most serious offense.

Table 16
Frequency and Percentage Distribution of Juvenile Drug Users versus Consumers*

Categories	Frequency	Percent
Nonoffender	2122	95.50
Distributors	20	0.90
Consumers	66	3.00
Unspecified	4	0.20
Missing Data	11	0.50
Total	101	4.50
System total	2223	100.00

*Offenders in this table had a contact for drugs as their most serious offense.

Table 17
Frequency and Percentage Distribution of Hard and Soft Drug Usage

Label	Frequency	Percent
Soft drug users	45	2.00
Hard drug users	40	1.80
Unspecified	6	0.30
Missing data	10	0.40
Non offender	2122	95.50
Total	2223	100.00

Table 18
Frequency and Percentage Distribution of Drug Involved (Juvenile & Adult)

Labels	Frequency	%
No offense	2177	97.90
Investigation, unspecified	2	0.10
Narcotics violation	1	0.00
Overdose, drug abuse	4	0.20
THC	7	0.30
Marijuana	18	0.80
Cocaine	1	0.00
Controlled substance, unspecified	3	0.10
Marijuana & PCP	1	0.00
Marijuana, qualude & valium	1	0.00
Prescription drugs w/o prescription	1	0.00
Marijuana & cocaine	3	0.10
Unidentified substance	1	0.00
THC & cocaine	2	0.10
Prescription drugs	1	0.00
TOTAL	2223	100.00
Offenders in this table had a contact for drugs as their most serious offense.		

Table 19
Frequency and Percentage Distribution of Juveniles Sanctioned for Drugs

Category	Frequency	Percent
Non Offender	2122	95.5
Sanctioned	80	3.6
Non Sanctioned	7	0.3
Missing	14	0.6
Total	2223	100

Table 20
Frequency and Percentage Distribution of Juvenile's Sanctioned for Crimes Other Than Drugs

Category	Frequency	Percent
Non Offender	1406	68.6
Sanctioned	393	16.9
Non Sanctioned	307	14.5
Missing	117	5.3
Total	2223	100

Table 21
Frequency and Percent Distribution of Age Composition of Group 1st-5th Contact

Category	Frequency	Percent
Non Offender	1937	72.4
Juvenile Offenders Only	507	18.9
>=1 Juveniles w/>=1 Adult	105	3.9
Adult Offenders	58	22
NA	69	2.6
Total	2676	100
Category	**Frequency**	**Percent**
Non Offender	2157	80.6
Juvenile Offenders Only	306	11.4
>=1 Juveniles w/>=1 Adult	77	2.9
Adult Offenders	66	2.5
NA	70	2.6
Total	2676	100
Category	**Frequency**	**Percent**
Non Offender	2297	85.8
Juvenile Offenders Only	211	7.9
>=1 Juveniles w/>=1 Adult	66	2.5
Adult Offenders	41	1.5
NA	61	2.3
Total	2676	100
Category	**Frequency**	**Percent**
Non Offender	2387	89.2
Juvenile Offenders Only	149	5.6
>=1 Juveniles w/>=1 Adult	41	1.5
Adult Offenders	47	1.8
NA	52	1.9
Total	2676	100
Category	**Frequency**	**Percent**
Non Offender	2449	91.5
Juvenile Offenders Only	118	4.4
>=1 Juveniles w/>=1 Adult	36	1.3
Adult Offenders	38	1.4
NA	35	1.3
Total	2676	100

>=1 Juveniles w/>=1 Adult refers to one or more juveniles with one or more adults.

Table 22
Frequency and Percentage Distribution of Sex Composition of Group 1st-5th Contact

1st Contact

Category	Frequency	Percent
No Offense	1937	72.4
Males Only	408	15.2
Females Only	99	3.7
Mixed	185	6.9
Not Available	47	1.8
Total	2676	100

2nd Contact

Category	Frequency	Percent
No Offense	2158	80.6
Males Only	289	10.8
Females Only	55	2.1
Mixed	130	4.9
Not Available	44	1.6
Total	2676	100

3rd Contact

Category	Frequency	Percent
No Offense	2298	85.9
Males Only	211	7.9
Females Only	22	0.8
Mixed	107	4
Not Available	38	1.4
Total	2676	100

4th Contact

Category	Frequency	Percent
No Offense	2387	89.2
Males Only	170	6.4
Females Only	25	0.9
Mixed	63	2.4
Not Available	31	1.2
Total	2676	100

5th Contact

Category	Frequency	Percent
No Offense	2449	91.5
Males Only	143	5.3
Females Only	14	0.5
Mixed	53	2
Not Available	17	0.6
Total	2676	100

Table 23

Cross-tabulation Between Status of Offense and Adult Crimes by Seriousness

Type of juvenile offense	Adult crimes by seriousness (N=2,223)		
	Not high	high	Total
Offender	823 89.5% 38.8% 37.02% cell	96 10.5% 96.0% 4.31% cell	919 100% 41.3%
No offense	1300 99.6% 61.2% 58.47% cell	4 .4% 4.0 .20% cell	1304 100% 58.7%
Total	2123 95.5% 100%	100 4.5% 100%	2223 100% 100%

χ^2= 129.00. Each cell presents n, row percentage, column percentage, and cell percentage.
ϕ=-.-241.
p<.05.

Table 24

Crosstabulation Between Nature of Offense and Adult Crimes by Seriousness

Juvenile offense	Adult crimes by seriousness (N=2,223)		
	Not high	High	Total
Drug offense	81 80.2% 3.8% 3.64% cell	20 19.8% 20%. .90% cell	101 100% 4.5%
Non drug offense	742 90.7% 35% 33.37% cell	76 9.3% 76% 3.41% cell	818 100% 36.8%
No offense	1300 99.7% 61.2% 58.47% cell	4 .3% 4.0% .21% cell	1304 100% 58.7%
Total	2123 95.5% 100%	100 4.5% 100%	2223 100% 100%

χ^2= 152.124. Each cell presents n, row percentage, column percentage, and cell percentage.
ϕ=..262.
p<.05.

Table 25

Cross-tabulation Between Type of Juvenile Sanction and Adult Crimes by Seriousness

Type of juvenile sanction	Adult crimes by seriousness (N=2,223)		
	Not high	High	Total
Sanction	399 84.4% 18.8% 17.97% cell	74 15.6% 74.% 3.32% cell	473 100% 21.3%
Not sanctioned but offender	305 97.1% 14.4% 13.72% cell	9 2.9% 9.0% .40% cell	314 100% 14.1%
Non offender	1419 98.8% 66.8% 63.83% cell	17 1.2% 17.% .76% cell	1436 100% 64.6%
Total	2123 95.5% 100%	100 4.5% 100%	2223 100% 100%

χ^2= 175.462. Each cell presents n, row percentage, column percentage, and cell percentage.
ϕ=..281.
p<.05.

Table 26

Cross-tabulation Between Type of Juvenile Sanction and Adult Crimes by Seriousness for Sanctioned Juveniles Only

Type of sanction	Adult crimes by seriousness (N=2,223)		
	Not High	High	Total
Drug sanction	61 76.3% 15.3% 12.90% cell	19 23.8% 25.7% 4.02% cell	80 100% 16.9%
Non drug sanction	338 86.0% 84.7% 71.46% cell	55 14% 74.3% 11.62% cell	393 100% 83.1%
Total	399 84.4 100%	74 15.6% 100%	473 100% 100%

χ^2= 4.79. Each cell presents n, row percentage, column percentage, and cell percentage.
ϕ= -.101.
p<.05.

Table 27

Crosstabulation Between Juvenile Drug Distributors and Adult Crimes by Seriousness

Nature of participation in drug use	Adult crimes by seriousness (N=2,223)		
	Not high	High	Total
Nondistributor	64 83.1% 83.1% 66% cell	13 16.9% 65% 13.46% cell	77 100% 79.4%
Distributor	13 65% 16.9% 13.4% cell	7 35% 35% 7.2% cell	20 100% 20.6%
Total	77 79.4% 100%	20 20.6% 100%	97* 100% 100%

*There are 4 cases for which data are not available. Each cell presents n, row percentage, column percentage, and cell percentage.
χ^2= 3.18.
ϕ=-..181.
p<.05.

Table 28

Crosstabulation Between Juvenile Hard Drug Usage and Adult Crimes by Seriousness

Type of drug	Adult crimes by seriousness (N=2,223)		
	Not high	High	Total
Hard drug user	30 78.9% 43.5% 35.30% cell	8 21.1% 50% 9.41% cell	38 100% 55.3%
Non hard drug user	39 83% 56.5% 45.88% cell	8 17% 50% 9.41% cell	38 100% 44.7%
Total	69 81.2% 100%	16 18.8% 100%	85 100% 100%

*There are 14 cases for which data is not available. Each cell presents n, row percentage, column percentage, and cell percentage.
χ^2= .223.
ϕ=..051.
p<.05.

Table 29
Logistic Regression of Adult Crimes of High Seriousness
On Juvenile Offender Status

Variables	Model I Exp(β)(S.E.)	Model II Exp(β)(S.E.)	Model III Exp(β)(S.E.)
Juvenile contact			
Offender	37.88 (0.5121)*	36.33 (0.5132)*	61.08 (0.6768)*
Nonoffender (R)	1.00	1.00	1.00
Gender			
Male		0.5313 (.2190)	0.6424 (0.3686)
Female (R)		1.00	1.00
Low SES			
Low		2.26 (0.3972)	1.59 (0.8054)
Not low (R)		1.00	1.00
Sex composition			
Same sex			0.8528 (.4192)
Different sex (R)			1.00
Age composition			
Same age			0.5098 (0.4190)
Different age (R)			1.00
Inner city			
Reside inner city			0.8512 (0.4524)
Not inner city (R)			1.00
	-2LL = 669.60 df =1 *p< .05. N=2,223	-2LL = 656.20 df =1 *p< .05. N=2,223	-2LL = 241.04 df =1 *p< .05. N=1,370

Table 30
Logistic Regression of Adult Crimes of High Seriousness on Type of Juvenile Contact

Variables	Model I Exp(β)(S.E.)	Model II Exp(β)(S.E.)	Model III Exp(β)(S.E.)
Drug contact			
Drug offender	80.18 (.5594)*	76.21 (56.14)*	139.08 (.7490)*
No contact (R)	1.00	1.00	1.00
Non Drug contact			
Non drug offender	33.26 (.5149)*	31.90 (.5160)*	45.43 (.6969)*
No contact (R)	1.00	1.00	1.00
Gender			
Male		.5347 (.2200)	.6369 (.3719)
Female (R)		1.00	1.00
Low SES			
Low		2.27 (.4002)	1.89 (.8107)
Not low (R)		1.00	1.00
Sex composition			
Same sex			.8805 (.4265)
Different sex (R)			1.00
Age composition			
Same age			.5778 (.4283)
Different age (R)			1.00
Inner city			
Reside inner city			.9162 (.4557)
Not inner city (R)			1.00
	-2LL = 660.68 df =1 *p<.05. N=2,223	-2LL = 647.61 df =1 *p< =.05. N=2,223	-2LL =236.055 df =1 *p<=.05. N=1,371

Table 31
Logistic Regression of Adult Crimes of High Seriousness on Juvenile Sanction

Variables	Model I Exp(β)(S.E.)	Model II Exp(β)(S.E.)	Model III Exp(β)(S.E.)
Juvenile sanction			
Sanctioned	12.29 (.2347)*	12.22 (.2365)*	10.55 (.4738)*
Not sanctioned & non offender (R)	1.00	1.00	1.00
Gender		.5137 (.2224)	.5948 (.3696)
Male		1.00	1.00
Female (R)			
Low SES		3.78 (.4383)	1.90 (8392)
Low		1.00	1.00
Not low (R)			
Sex composition			1.86 (.5181)
Same sex			1.00
Different sex (R)			
Age composition			1.04 (.5072)
Same age			1.00
Different age (R)			
Inner city			1.09 (.4500)
Reside inner city			1.00
Not inner city (R)			
	-2LL = 680.80	-2LL = 661.78	-2LL = 259.43
	df =1	df =1	df =1
	*p<.05	*p<.05	*p<.05
	N=2,223	N=2,223	N=1,371

Table 32
Logistic Regression of Adult Crimes of High Seriousness on Juvenile Drug Sanctions, and Juveniles Sanctioned for Crimes Other Than Drugs

Variables	Model I Exp(β)(S.E.)	Model II Exp(β)(S.E.)	Model III Exp(β)(S.E.)
Juvenile drug sanction			
Offender	38.44 (.3828)*	36.90 (.3859)*	45.26 (.6860)*
Nonoffender (R)	1.00	1.00	1.00
Juvenile non drug sanction			
Offender	20.08 (.3140)*	19.69 (31.67)*	18.88 (.6239)*
Nonoffender (R)	1.00	1.00	1.00
Gender			
Male		.5119 (.2417)	.5302 (.4189)
Female (R)		1.00	1.00
Low SES			
Low		3.27 (.5043)	.9431 (1.13)
Not low (R)		1.00	1.00
Sex composition			
Same sex			1.10 (.5432)
Different sex (R)			1.00
Age composition			
Same age			1.21 (.5434)
Different age (R)			1.00
Inner city			
Reside inner city			.7336 (.5744)
Not inner city (R)			1.00
	-2LL = 557.27 df =1 *p<.05 N=2,223	-2LL = 542.87 df =1 *p<.05 N=2,223	-2LL = 199.79 df =1 *p<.05 N=1,371

Table 33
Logistic Regression of Adult Crimes of High Seriousness on Juvenile Drug Distributors

Variables	Model I Exp(β)(S.E.)	Model II Exp(β)(S.E.)	Model III Exp(β)(S.E.)
Juvenile drug offender			
Distributor	2.65 (.5589)	2.13 (.5790)	4.43 (1.11)
Non-distributor (R)	1.00	1.00	1.00
Gender			
Male		.3332 (.5806)	1.61 (.9788)
Female (R)		1.00	1.00
Low SES			
Low		2.85 (.9715)	constant
Not low (R)		1.00	1.00
Sex composition			
Same sex			0.8528 (.4192)
Different sex (R)			1.00
Age composition			
Same age			.3940 (.9123)
Different age (R)			1.00
Inner city			
Reside inner city			67.38 (1.27)
Not inner city (R)			1.00
	-2LL =95.81 df = 1 *p<.05 . N=101	-2LL = 90.83 df = 1 *p<.05. N=97	-2LL = 33.83 df = 1 *p<.05. N=34

The variable LOWSES is constant for all selected cases.

Table 34
Logistic Regression of Adult Crimes of High Seriousness on
Juvenile Hard Drug Distributors

Variables	Model I Exp(β)(S.E.)	Model II Exp(β)(S.E.)	Model III Exp(β)(S.E.)
Juvenile drug offender			
Hard drug usage	1.29 (.5558)	1.26 (.5863)	1.52 (1.01)
Non hard drug usage (R)	1.00	1.00	1.00
Gender			
Male		.3138 (.6356)	.8907 (.9463)
Female (R)		1.00	1.00
Low SES			
Low		4.19 (1.09)	constant
Not low (R)		1.00	1.00
Sex composition			
Same sex			.9930 (1.08)
Different sex (R)			1.00
Age composition			
Same age			.4852 (.9735)
Different age (R)			1.00
Inner city			
Reside inner city			.0003 (44.33)
Not inner city (R)			1.00
	-2LL = 81.99	-2LL = 76.05	-2LL = 29.58
	df = 1	df = 1	df = 1
	p<.05.	p<.05.	p<.05.
	N=101	N=85	N=31

The variable LOWSES is constant for all selected cases.

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way of life diminishes the effectiveness of official deterrence techniques to an extent, because drug abuse is a biopsychosocial problem.

In this study, the researcher pursued a number of concerns dealing with the question of whether juveniles who are delinquents and drug users are more likely to commit crimes as adults. The focus was on the juvenile recidivist and the juvenile drug user. The results indicate that those juveniles having a contact with the police are more likely to have a criminal career than are those who do not. Furthermore, those juveniles having a police contact for drugs are far more likely to commit crimes of high seriousness in adulthood than are those juveniles having police contact for non-drug crimes. In an analysis of sanctions, the results support the hypothesis that those juveniles receiving a sanction are less likely to commit a crime of high seriousness in adulthood than those who received no sanction. In addition, the empirical findings support the hypothesis that those juveniles receiving a sanction for a drug crime are more likely to commit an adult crime of high seriousness than are those juveniles who received a non-drug sanction. This result is likely due to the biopsycosocial nature of drug abuse. The results do not support the hypothesis that juvenile drug distributors are more likely to commit a crime of high seriousness in adulthood than are consumers. Also, the results suggest that there is no support for the hypothesis that juveniles who used hard drugs are more likely to commit adult crimes of high seriousness than are those who used marijuana only. These results suggest that once a juvenile is in the drug web, he/she becomes an active participant in a network of criminal activity.